=> d his

L27

L28

L29 L30 1406 S E8, E7

13511 S E3-E25

25068 S E5+NT

E E3+ALL

E ARTHRITIS/CT

15 S L8 AND L27-L29

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(FILE 'HOME' ENTERED AT 11:53:35 ON 26 FEB 2004)
                SET COST OFF
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                 E CEGDSGGPFV/SQEP
               1 S E3
L1
                 E RGDA/SQEP
             13 S E3
1.2
                 E AGYKPDEGKRGDACEGDSGGPFV/SQEP
               4 S E3
L3
                 E CEGDSGGPFV/SQEP
               1 S E3
L4
                 E CEGDSGGPMV/SQEP
                 E CEGDSGGPLV/SQEP
                 E CEGDSGGPHV/SQEP
                 E CEGDSGGPVV/SQEP
                E CQGDSGGPFV/SQEP
                E CQGDSGGPMV/SQEP
                E CQGDSGGPLV/SQEP
                 E CQGDSGGPHV/SQEP
                 E CQGDSGGPVV/SQEP
                 E RGDACEGDSGGPFV/SQEP
             10 S E3 OR E4 OR E5 OR E6 OR E7 OR E8 OR E9 OR E10 OR E11 OR E12
L5
               1 S THROMBIN/CN
L6
                 E SERINE ESTERASE/CN
L7
               1 S E3
     FILE 'HCAPLUS' ENTERED AT 11:58:18 ON 26 FEB 2004
             36 S L1-L5
L8
          16658 S L6
L9
          31008 S THROMBIN
L10
             22 S L8 AND L9, L10
L11
           6282 S L7
L12
            617 S SERINE ESTERASE
L13
          16672 S SERINE() (PROTEASE OR PROTEINASE)
L14
            131 S SERINE() (ENDOPEPTIDASE OR ENDO PEPTIDASE)
L15
            164 S SERINE PEPTIDASE
L16
               4 S L8 AND L12-L16
L17
                 E CARTILAGE/CT
          12893 S E3-E35
L18
                 E E3+ALL
          16365 S E7+NT
L19
                 E E12+ALL
           1451 S E5, E6, E4+NT
L20
                 E JOINT/CT
            5545 S E11-E33
L21
                 E E11+ALL
          10239 S E6, E5+NT
L22
                 E E12+ALL
            2997 S E2
T-23
L24
               4 S L8 AND L18-L23
               3 S L11, L17 AND L18-L23
L25
L26
               4 S L24, L25
                 E THROMBIN/CT
                 E E4+ALL
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robinson - 09 / 909348
             36 S L8, L17, L26, L30
L31
L32
             18 S L31 AND (CARNEY D? OR CROWTHER R? OR STIERNBERG J? OR BERGMAN
             29 S L31 AND (PD<=20010720 OR PRD<=20010720 OR AD<=20010720)
L33
              7 S L31, L32 NOT L33
L34
              4 S L31 AND (?CARTIL? OR ?ARTHRI? CHONDROCYT? OR ?TRAUM?)
L35
              5 S L31 AND (TRANSPLANT? OR PROSTHE?)
L36
L37
              7 S L31 AND (?GLYCOLIC? OR ?LACTIC? OR ?GLYCOLATE? OR ?LACTATE?)
     FILE 'REGISTRY' ENTERED AT 12:11:47 ON 26 FEB 2004
              3 S 34346-01-5 OR 26100-51-6 OR 26124-68-5
L38
     FILE 'HCAPLUS' ENTERED AT 12:12:11 ON 26 FEB 2004
L39
              6 S L38 AND L31
              4 S L31-L37,L39 AND L35
L40
=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 12:13:01 ON 26 FEB 2004
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FILE COVERS 1907 - 26 Feb 2004 VOL 140 ISS 9 FILE LAST UPDATED: 25 Feb 2004 (20040225/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 140 all tot

T.4 0

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ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
AN
     2004:41496 HCAPLUS
DN
     140:105322
ED
     Entered STN: 18 Jan 2004
     Therapeutic methods for the use of thrombin peptide derivative
TI
     dimers as thrombin receptor agonists
TN
     Carney, Darrell H.
     The Board of Regents, the University of Texas System, USA
PΑ
     PCT Int. Appl., 33 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
IC
     ICM C07K
CC
     1-12 (Pharmacology)
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                          APPLICATION NO.
                                                            DATE
                                           _____
                                          WO 2003-US20626 20030701
     WO 2004005317
                     . A2
                            20040115
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
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PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2002-393579P
                             20020702
                       Р
os
     MARPAT 140:105322
     Disclosed are thrombin peptide derivative dimers comprising two
     polypeptides having the amino acid sequence SEQ ID NO. 2:
     Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val, or a C-terminal
     truncated fragment of the polypeptide having at least six amino acids.
     Zero, one, two, or three amino acids in the polypeptide or polypeptide
     fragment differ from the corresponding position of SEQ ID NO. 2. Also
     disclosed are methods of treating a subject in need of treatment with a
     thrombin receptor agonist. The methods comprise the step of
     administering an effective amount of the thrombin peptide derivative
     described above.
     thrombin peptide deriv dimer receptor agonist bone wound healing
ST
IT
     Thrombin receptors
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (agonist; therapeutic methods for use of thrombin peptide
        derivative dimers as thrombin receptor agonists)
IT
     Disulfide group
        (binding thrombin peptide dimers; therapeutic methods for use
        of thrombin peptide derivative dimers as thrombin
        receptor agonists)
     Transplant and Transplantation
IT
        (bone; therapeutic methods for use of thrombin peptide derivative
        dimers as thrombin receptor agonists)
TT
     Bone, disease
        (fracture, simple and nonunion; therapeutic methods for use of
        thrombin peptide derivative dimers as thrombin receptor
        agonists)
IT
     Heart, disease
        (injury; therapeutic methods for use of thrombin peptide
        derivative dimers as thrombin receptor agonists)
IT
        (of thrombin peptides; therapeutic methods for use of
        thrombin peptide derivative dimers as thrombin receptor
        agonists)
IT
     Artery, disease
        (restenosis; therapeutic methods for use of thrombin peptide
        derivative dimers as thrombin receptor agonists)
     Bone, disease
IT
        (segmental gap and void; therapeutic methods for use of
        thrombin peptide derivative dimers as thrombin receptor
        agonists)
IT
     Bone formation
     Cardiovascular agents
       Cartilage, disease
       Cartilage formation
     Human
     Protein sequences
     Wound
     Wound healing
     Wound healing promoters
        (therapeutic methods for use of thrombin peptide derivative
        dimers as thrombin receptor agonists)
```

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

Growth factors, animal

IT

```
(Biological study); USES (Uses)
        (therapeutic methods for use of thrombin peptide derivative
        dimers as thrombin receptor agonists)
IT
    Bone
        (transplant; therapeutic methods for use of thrombin
        peptide derivative dimers as thrombin receptor agonists)
     9002-04-4, Thrombin 9002-04-4D,
IT
     Thrombin, derivs.
    RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (dimers; therapeutic methods for use of thrombin peptide
        derivative dimers as thrombin receptor agonists)
IT
     146367-84-2 497221-38-2 642984-25-6
     642984-27-8 642984-29-0 642984-31-4
     642984-33-6 642984-35-8 642984-37-0
                                             642984-45-0
     642984-39-2 642984-41-6 642984-43-8
                   642984-49-4
                                 642984-51-8
                                               642984-53-0
                                                             642984-56-3
     642984-47-2
                                                             642984-68-7
                                               642984-66-5
     642984-58-5
                   642984-60-9
                                 642984-64-3
                                 642984-75-6
                                               642984-78-9
                                                             642984-80-3
     642984-70-1
                   642984-72-3
     642984-82-5
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (therapeutic methods for use of thrombin peptide derivative
        dimers as thrombin receptor agonists)
                                               646119-59-7
                   646119-57-5
                                646119-58-6
IT
     121341-81-9
                   646119-61-1
                                 646119-62-2
     646119-60-0
     RL: PRP (Properties)
        (unclaimed sequence; therapeutic methods for the use of
        thrombin peptide derivative dimers as thrombin receptor
        agonists)
     ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
L40
ΑN
     2003:591029 HCAPLUS
DN
     139:128057
     Entered STN: 01 Aug 2003
ED
     Stimulation of bone growth and cartilage formation with
TI
     thrombin peptide derivatives
     Carney, Darrell H.; Crowther, Roger S.; Simmons, David
IN
     J.; Yang, Jinping; Redin, William R.; Stiernberg, Janet;
     Bergmann, John
     The Board of Regents, the University of Texas System, USA
PA
     PCT Int. Appl., 47 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
IC
     ICM A61K038-48
         A61L027-12; A61L027-38; A61L027-46; A61L027-50; C12N005-06;
          C12N005-08; A61K035-32; A61P019-00
     1-12 (Pharmacology)
CC
     Section cross-reference(s): 9
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
                           _____
                                           _____
                                                            20020117
                            20030731
                                          WO 2002-US1451
PΙ
     WO 2003061690
                      A1
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
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BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                            20020117
PRAI WO 2002-US1451
    A method is disclosed for stimulating bone growth at a site in a subject
    in need of osteoinduction or cartilage repair. The method
    comprises administering a therapeutically effective amount of an agonist of
     the non-proteolytically activated thrombin receptor (NPAR) to
     the site. Also disclosed is a method of stimulating the proliferation and
     expansion of chrondrocytes in vitro. The method comprises culturing
    chrondrocytes in the presence of a stimulating amount of an NPAR agonist.
     thrombin peptide bone growth stimulation cartilage
ST
     repair; NPAR receptor agonist bone growth stimulation cartilage
    repair; chondrocyte proliferation NPAR receptor agonist thrombin
    peptide
IT
    Thrombin receptors
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (NPAR (non-proteolytically activated thrombin receptor); bone
        growth and cartilage formation stimulation with
        thrombin peptide derivs.)
IT
    Arthritis
        (arthritic joint; bone growth and cartilage formation
        stimulation with thrombin peptide derivs.)
IT
    Joint, anatomical
        (arthritic; bone growth and cartilage formation stimulation
        with thrombin peptide derivs.)
     Polymers, biological studies
IT
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (biodegradable, carrier; bone growth and cartilage formation
        stimulation with thrombin peptide derivs.)
IT
     Bone formation
    Drug delivery systems
        (bone growth and cartilage formation stimulation with
        thrombin peptide derivs.)
IT
     Peptides, biological studies
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (bone growth and cartilage formation stimulation with
        thrombin peptide derivs.)
     Transplant and Transplantation
IT
        (bone; bone growth and cartilage formation stimulation with
        thrombin peptide derivs.)
IT
     Ceramics
        (calcium phosphate ceramic paste, carrier; bone growth and
        cartilage formation stimulation with thrombin peptide
        derivs.)
    Collagens, biological studies
IT
     Fibrins
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (carrier; bone growth and cartilage formation stimulation
        with thrombin peptide derivs.)
IT
     Injury
        (cartilage damage or loss due to traumatic injury;
        bone growth and cartilage formation stimulation with
        thrombin peptide derivs.)
TΤ
     Proteoglycans, biological studies
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (chondrocyte, biosynthesis; bone growth and cartilage
        formation stimulation with thrombin peptide derivs.)
IT
    Animal tissue culture
     Cell proliferation
        (chondrocyte; bone growth and cartilage formation stimulation
```

(culture; bone growth and cartilage formation stimulation

with thrombin peptide derivs.)

IT

Chondrocyte

with thrombin peptide derivs.) Cartilage TT (damage or loss; bone growth and cartilage formation stimulation with thrombin peptide derivs.) Bone, disease IT (fracture; bone growth and cartilage formation stimulation with thrombin peptide derivs.) Drug delivery systems IT (implants; bone growth and cartilage formation stimulation with thrombin peptide derivs.) Drug delivery systems IT (injections; bone growth and cartilage formation stimulation with thrombin peptide derivs.) IT Drug delivery systems (microparticles; bone growth and cartilage formation stimulation with thrombin peptide derivs.) Drug delivery systems IT (microspheres; bone growth and cartilage formation stimulation with thrombin peptide derivs.) IT Drug delivery systems (pastes, calcium phosphate ceramic paste, carrier; bone growth and cartilage formation stimulation with thrombin peptide derivs.) IT (transplant; bone growth and cartilage formation stimulation with **thrombin** peptide derivs.) IT Injury (trauma, cartilage damage or loss due to traumatic injury; bone growth and cartilage formation stimulation with thrombin peptide derivs.) TT Bone (void or segmental gap; bone growth and cartilage formation stimulation with thrombin peptide derivs.) TT 9002-04-4, Thrombin RL: BSU (Biological study, unclassified); BIOL (Biological study) (bone growth and cartilage formation stimulation with thrombin peptide derivs.) 121341-81-9, TP 508 497221-38-2 566137-83-5 TT 566137-84-6 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (bone growth and cartilage formation stimulation with thrombin peptide derivs.) IT 7778-18-9, Calcium sulfate 10103-46-5, Calcium phosphate 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2ethanediyl)] 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 27083-66-5, Poly(propylene fumarate) 34346-01-5, Lactic acidglycolic acid copolymer RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (carrier; bone growth and cartilage formation stimulation with thrombin peptide derivs.) TT 113-00-8, Guanidine RL: NUU (Other use, unclassified); USES (Uses) (quanidine-extracted allogenic carrier; bone growth and cartilage formation stimulation with thrombin peptide derivs.) RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD (1) Athanasiou, K; US 5876452 A 1999 (2) Ben; WO 9908728 A 1999 HCAPLUS (3) Bergmann, J; WO 0207748 A 2002 HCAPLUS (4) Bi, L; JOURNAL OF BONE AND MINERAL RESEARCH, abstract SA203 2001, V16(suppl 1), PS261

```
(5) Redin, W; WO 0205836 A 2002 HCAPLUS
(6) Schwartz, Z; US 6001352 A 1999 HCAPLUS
(7) Stiernberg, J; WOUND REPAIR AND REGENERATION, MOSBY-YEAR BOOK 2000, V8(3),
    P204 MEDLINE
(8) Wang, H; MOLECULAR BIOLOGY OF THE CELL, abstract 1263 2000, V11(suppl),
    P243a
    ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
L40
AN
     2003:417578 HCAPLUS
     139:12258
DN
     Entered STN: 01 Jun 2003
ED
     Flowable osteogenic and chondrogenic compositions
TI
     Bruder, Scott; Clarke, Rhonda; Pedrozo, Hugo; Plouhar, Pamela Lynn
IN
     Depuy Products, Inc., USA
PA
SO
     PCT Int. Appl., 21 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
IC
     ICM A61K
CC
     63-6 (Pharmaceuticals)
     Section cross-reference(s): 1, 2
FAN.CNT 1
                      KIND DATE
                                           APPLICATION NO. DATE
     PATENT NO.
                            _____
                      _ _ _ _
     WO 2003043576 A2
                                           WO 2002-US36973 20021115
                            20030530
PΙ
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
PRAI US 2001-331610P
                      P
                            20011120
     The repair of a cartilage or bone defect is described using a
     flowable compns. including a chondrogenic agent or osteogenic agent and a
     biocompatible carrier that is more fluid at ambient temperature than at
elevated
     temperature The agent is selected from, e.g., estrogens, selective estrogen
     receptor modifiers, bisphosphonates, src-tyrosine kinase inhibitors,
     cathepsin K inhibitors, vacuolar ATPase inhibitors, statins, fluprostenol,
     vitamin D, and prostaglandins.
     chondrogenic osteogenic agent carrier injection bone cartilage
ST
     defect
IT
     Adhesives
        (biol.; flowable compns. containing osteogenic and chondrogenic agent and
        biocompatible carrier)
     Growth factors, animal
IT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (bone cell or chondrocyte-stimulating; flowable compns. containing
        osteogenic and chondrogenic agent and biocompatible carrier)
     Transplant and Transplantation
IT
        (bone marrow; flowable compns. containing osteogenic and chondrogenic agent
        and biocompatible carrier)
IT
     Polymers, biological studies
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (carriers; flowable compns. containing osteogenic and chondrogenic agent
        and biocompatible carrier)
IT
     Antibodies
```

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugates, tumor-specific, with toxins; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier) Imaging agents IT (contrast, radiog.; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier) Bone, disease ITCartilage (defect; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier) Anticoaqulants TT Antitumor agents Blood Blood cell Immunosuppressants Permeation enhancers Surfactants (flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier) IT Amino acids, biological studies Angiogenic factors Collagens, biological studies Cytokines Enzymes, biological studies Estrogens Fibronectins Hormones, animal, biological studies Interleukin 1 Mineral elements, biological studies Nucleic acids Peptides, biological studies Prostaglandins Proteins Tumor necrosis factors Vitamins RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier) ΙT Drug delivery systems (injections; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier) IT Estrogen receptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (modifiers; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier) IT Bone marrow (transplant; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier) IT 57-27-2, Morphine, biological studies 69-72-7, 50-36-2, Cocaine Salicylic acid, biological studies 94-09-7, Benzocaine 103-90-2, 137-58-6, Lidocaine 1306-06-5, Hydroxyapatite Acetaminophen 1406-16-2, Vitamin D 5104-49-4, Flurbiprofen 7758-87-4, Tricalcium 9004-32-4, Carboxymethyl cellulose 9002-72-6, Growth hormone 9004-62-0, Hydroxyethyl cellulose 9004-61-9, Hyaluronic acid 11138-66-2, Xanthan gum 9005-38-3, Sodium alginate 10103-46-5, Dynafos 13598-36-2D, Phosphonic acid, alkylidenebis-derivs. 15687-27-1, 36322-90-4, Piroxicam 38396-39-3, 22204-53-1, Naproxen Bupivacaine 40666-16-8, Fluprostenol 62683-29-8, Colony-stimulating 106392-12-5, Poloxamer 121341-81-9, Chrysalin 127464-60-2, Vascular endothelial growth factor 533926-63-5, KRX 167 533927-64-9, MP 52 (protein) RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (flowable compns. containing osteogenic and chondrogenic agent and

biocompatible carrier)

```
9028-35-7, NADPH-hydroxymethylqlutaryl-CoA reductase
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors, statins; flowable compns. containing osteogenic and
        chondrogenic agent and biocompatible carrier)
     94716-09-3, Cathepsin K 141349-89-5, Src-tyrosine kinase
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors; flowable compns. containing osteogenic and chondrogenic agent
        and biocompatible carrier)
IT
     9000-83-3, ATPase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (vacuolar, inhibitors; flowable compns. containing osteogenic and
        chondrogenic agent and biocompatible carrier)
     ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
L40
     2002:89846 HCAPLUS
AN
DN
     136:145245
ED
     Entered STN: 01 Feb 2002
     Stimulation of cartilage growth with agonists of the
TI
     non-proteolytically activated thrombin receptor
     Carney, Darrell H.; Crowther, Roger S.;
IN
     Stiernberg, Janet; Bergmann, John
     The Board of Regents, the University of Texas System, USA
PA
SO
     PCT Int. Appl., 28 pp.
                                             God date
     CODEN: PIXXD2
DT
     Patent
     English
LA
IC
     ICM A61K038-00
     1-10 (Pharmacology)
CC
     Section cross-reference(s): 9, 63
FAN.CNT 1
                      KIND DATE
                                           APPLICATION NO.
                                                            DATE
     PATENT NO.
     WO 2002007748
                                           WO 2001-US22668 20010719 <--
PΙ
                      A2
                            20020131
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                           US 2001-909348
                                                            20010719 <--
     US 2002042373
                       A1
                            20020411
                                           EP 2001-952846
                                                            20010719 <--
     EP 1259598
                       A2
                            20021127
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     JP 2004504354
                       T2
                            20040212
                                           JP 2002-513481
                                                            20010719 <--
                                           US 2002-50688
                                                            20020116 <--
     US 2002198154
                       A1
                            20021226
                            20000720
PRAI US 2000-219800P
                                      <--
                            20010719
     US 2001-909348
                       Α1
                                      <--
     WO 2001-US22668
                       W.
                            20010719
     MARPAT 136:145245
     Disclosed is a method of stimulating cartilage growth, repair or
     regeneration at a site in a subject in need of such growth, repair or
     regeneration. The method comprises the step of administering a
     therapeutically effective amount of an agonist of the non-proteolytically
     activated thrombin receptor (NPAR) to the site. Also disclosed
     is a method of stimulating the proliferation and expansion of chondrocytes
     in vitro. The method comprises culturing chondrocytes in the presence of
     a stimulating amount of an NPAR agonist. The NPAR agonist TP508 (a
     thrombin peptide derivative) stimulated cartilage growth in
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cartilage growth nonproteolytically activated thrombin

ST

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receptor agonist; chondrocyte proliferation culture NPAR agonist;
     thrombin peptide TP508 stimulation cartilage growth
    Cell proliferation
IT
        (chondrocytes; stimulation of cartilage growth with agonists
        of non-proteolytically activated thrombin receptor)
     Transplant and Transplantation
IT
        (cultured chondrocytes; stimulation of cartilage growth with
        agonists of non-proteolytically activated thrombin receptor)
IT
     Cartilage, disease
        (damage or loss; stimulation of cartilage growth with
        agonists of non-proteolytically activated thrombin receptor)
IT
    Drug delivery systems
        (implants; stimulation of cartilage growth with agonists of
        non-proteolytically activated thrombin receptor)
IT
     Arthritis
        (joint with; stimulation of cartilage growth with agonists of
        non-proteolytically activated thrombin receptor)
IT
     Drug delivery systems
        (microspheres; stimulation of cartilage growth with agonists
        of non-proteolytically activated thrombin receptor)
IT
     Thrombin receptors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (nonproteolytically-activated; stimulation of cartilage
        growth with agonists of non-proteolytically activated thrombin
        receptor)
     Animal tissue culture
IT
        (of chondrocytes; stimulation of cartilage growth with
        agonists of non-proteolytically activated thrombin receptor)
     Peptides, biological studies
IT
     RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (of thrombin, as agonists; stimulation of cartilage
        growth with agonists of non-proteolytically activated thrombin
        receptor)
IT
     Chondrocyte
        (proliferation and expansion; stimulation of cartilage growth
        with agonists of non-proteolytically activated thrombin
        receptor)
     Proteoglycans, biological studies
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (stimulation of bovine chondrocyte synthesis of; stimulation of
        cartilage growth with agonists of non-proteolytically activated
        thrombin receptor)
TΤ
     Cartilage
        (stimulation of cartilage growth with agonists of
        non-proteolytically activated thrombin receptor)
TТ
     Injury
        (trauma, cartilage damage or loss due to;
        stimulation of cartilage growth with agonists of
        non-proteolytically activated thrombin receptor)
     9002-04-4, Thrombin
TТ
     RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (peptide, as agonist; stimulation of cartilage growth with
        agonists of non-proteolytically activated thrombin receptor)
     26100-51-6, Polylactic acid 26124-68-5,
IT
     Polyglycolic acid 34346-01-5
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (pharmaceutical carrier; stimulation of cartilage growth with
        agonists of non-proteolytically activated thrombin receptor)
     13433-02-8D, fragment
     RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
```

(Uses)

```
(stimulation of cartilage growth with agonists of
       non-proteolytically activated thrombin receptor)
    37259-58-8, Serine esterase
IT
    RL: PRP (Properties)
        (thrombin peptide derivative with conserved sequence of;
       stimulation of cartilage growth with agonists of
       non-proteolytically activated thrombin receptor)
                  393596-78-6
IT
    390773-29-2
    RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
        (thrombin peptide derivative with conserved sequence of;
       stimulation of cartilage growth with agonists of
       non-proteolytically activated thrombin receptor)
     93674-98-7
                 393596-79-7
IT
    RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
        (thrombin peptide derivative; stimulation of cartilage
       growth with agonists of non-proteolytically activated thrombin
       receptor)
=> s 131-137,139 not 140
           32 (L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L39) NOT L40
L41
=> d bib abs hitrn tot retable
    ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
     2003:785260 HCAPLUS
AN
DN
     139:286388
     Thrombin derived peptides for regularing thrombin receptor mediated cell
TI
     stimulation and therapeutic use in wound healing
     Carney, Darrell H.; Glenn, Kevin C.
IN
     The Board of Regents, University of Texas Syatems, USA; Pharmacia
PA
     U.S., 18 pp., Cont.-in-part of U.S. Ser. No. 538,504.
SO
     CODEN: USXXAM
DТ
     Patent
     English
LA
FAN.CNT 2
                                          APPLICATION NO.
                                                           DATE
                     KIND DATE
     PATENT NO.
     US 6630572
                      B1
                           20031007
                                          US 2000-631137
                                                            20000802 <--
PΤ
     US 5352664
                      Δ
                           19941004
                                           US 1986-925201
                                                            19861031 <--
     US 5500412
                                           US 1993-7173
                                                            19930121 <--
                      Α
                          19960319
                                           US 1995-538504
                                                            19950929 <--
     US 6627731
                      B1 20030930
PRAI US 1986-925201
                     A3
                          19861031 <--
     US 1993-7173
                      A1
                           19930121
                                     < - -
     US 1995-538504
                      A2
                           19950929 <--
OS
     MARPAT 139:286388
     Thrombin is now known to mediate a number of potent biol. effects on cells
AB
     bearing high-affinity thrombin receptors. These effects depend, at least
     in part, upon receptor occupancy signals generated by thrombin's
     interaction with the high affinity thrombin receptor. The present
     inventors have formulated synthetic thrombin derivs. capable of
     selectively stimulating or inhibiting thrombin receptor occupancy signals.
     The stimulatory thrombin derivs. to bind to cell surface thrombin
     receptors and stimulate DNA synthesis in cells treated with non-mitogenic
     concns. of alpha-thrombin or phorbol myristate acetate. Thus, these
     peptides, which have both a thrombin receptor binding domain and a segment
     of amino acids with a sequence common to a number of serine
     proteases, appear to generate receptor-occupancy dependent
```

mitogenic signals. The inhibitory derivs., which have no serine esterase conserved amino acid sequences bind to thrombin receptors without generating receptor-occupancy dependent mitogenic signals.

invention describes the peptides and methods for using them to promote cell growth and wound healing or to inhibit scar formation, tissue adhesions, and tumor metastasis and angiogenesis.

IT 37259-58-8, Serine esterase

RL: BSU (Biological study, unclassified); BIOL (Biological study) (thrombin derived peptides for regularing thrombin receptor mediated cell stimulation and therapeutic use in wound healing)

IT 146367-84-2

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(thrombin fragment sequence; thrombin derived peptides for regularing thrombin receptor mediated cell stimulation and therapeutic use in wound healing)

IT 93674-98-7

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(thrombin receptor-binding domain fragment sequence; thrombin derived peptides for regularing thrombin receptor mediated cell stimulation and therapeutic use in wound healing)

RETABLE

Referenced Author	Year	VOL	PG	Referenced Work	Referenced
(RAU)		(RVL)		(RWK)	File
Asstov	1978	+====- 	+=====- 539	Khim Prir Soedin	+======== HCAPLUS
Butowski	1977	252	4942	J Biol Chem	
Carney	1994			US 5352664 A	HCAPLUS
Carney	1996			US 5500412 A	HCAPLUS
Carney	1978	15	3141	Cell	
Carney	1978	14	811	Cell	HCAPLUS
Carney	1985	42	479	Cell	HCAPLUS
Carney	1984	26	181	J Cell Biochem	HCAPLUS
Carney	1984	26	181	Journal of Cellular	HCAPLUS
Carney	1986	12	231	Seminars in Thrombos	HCAPLUS
Cioca	1985			US 4515637 A	HCAPLUS
Degen	1983	22	2087	Biochemistry	HCAPLUS
Fenton	1981	370	468	Annals New York Acad	HCAPLUS
Ginsberg	1985	260	3931	J Biol Chem	HCAPLUS
Glenn	1980	255		J Biol Chem	
Hayman	1985	100	1948	The Journal of Cell	HCAPLUS
Humphries	1986	23	467	Science	
Perdue	1981	256	2767	Journal of Biologica	
Pierschbacher	1985	28	115	Journal of Cellular	HCAPLUS
Pierschbacher	1984	309	30	Nature	HCAPLUS
Pierschbacher	1984	81	5985	Proc Nat Acad Sci US	HCAPLUS
Rouslahti	1985	5	581	Arteriosclerosis	
Rouslahti	1986	44	517	Cell	
Ruoslahti	1985			US 4517686 A	HCAPLUS
Ruoslahti	1986			US 4578079 A	HCAPLUS
Ruoslahti	1991			US 4988621 A	
Stroetmann	1984			US 4427651 A	HCAPLUS
Zimmerman	1987			US 4683291 A	HCAPLUS
Zimmermann	1986			US 4606337 A	HCAPLUS

- L41 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 2003:603900 HCAPLUS
- DN 139:148476
- TI Synthetic peptides derived from the PART thrombin receptor as chemotactic agents for neutrophils
- IN Carney, Darrell H.; Ramakrishnan, Shyam
- PA Chrysalis Biotechnology, USA
- SO U.S., 14 pp., Cont.-in-part of U.S. 6,184,342.

CODEN: USXXAM

DT Patent LA English

LA Englis

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
		-				-
ΡI	US 6602978	B1	20030805		US 2000-644038	20000822 <
	US 6184342	B1	20010206		US 1994-330594	19941028 <
PRAI	US 1994-330594	A2	19941028	<		

AB Synthetic peptides derived from the proteolytically activated receptor for thrombin which are potent chemotactic agents for human neutrophils, are described for use in the therapeutic induction of neutrophil chemotaxis. The specificity of these peptides is amino acid sequence specific for binding to a heretofore unidentified receptor on the surface of neutrophils. Neutrophil response to this peptide is specific, since monocytes and fibroblasts do not show any expression of this receptor. Antibodies against these peptides block the chemotactic response. Such antibodies are useful to modulate neutrophil recruitment to a wound site for enhancing or inhibiting inflammation and early effects of wound healing.

IT 121341-81-9

RL: PRP (Properties)

(unclaimed sequence; synthetic peptides derived from the PART thrombin receptor as chemotactic agents for neutrophils)

RETABLE					
Referenced Author	Year	VOL	PG	Referenced Work	Referenced
(RAU)	(RPY)	(RVL)	(RPG)	(RWK)	File
=======================================	+=====	+=====	+=====	+===============	+=======
Anon	1992	1		WO 9214750	HCAPLUS
Bowie, J	1990	247	1306	Science	HCAPLUS
Burgess	1990	111	2129	J Cell Bio	HCAPLUS
Burgess, W	1990	111	2129	J Cell Biol	HCAPLUS
Coughlin	1993	İ	İ	US 5256766 A	HCAPLUS
Coughlin	1997	İ	ĺ	US 5688768 A	HCAPLUS
Coughlin	1998	1	İ	US 5759994 A	HCAPLUS
Coughlin	1998	İ	Ì	US 5798248 A	HCAPLUS
Coughlin	1998	ļ	ĺ	US 5849507 A	HCAPLUS
Lazar	1988	8	1247	Mol and Cell Biol	HCAPLUS
Lazar, E	1988	8	1247	Mol Cell Biol	HCAPLUS
Sundelin	1997	İ		US 5629174 A	HCAPLUS
Sundelin	1998		ĺ	US 5716789 A	HCAPLUS
Sundelin	11998	İ	İ	US 5763575 A	HCAPLUS

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L41 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
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AN 2003:591028 HCAPLUS

DN 139:128022

TI Thrombin-derived peptides for promoting cardiac tissue repair

IN Carney, Darrell H.

PA The Board of Regents, the University of Texas System, USA

SO PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	-111	_																	
	PA	TENT :	NO.		KI	ND :	DATE			A.	PPLI	CATI	ON NO	ο.	DATE				
										-									
ΡI	WO	2003	0616	89	A	1 .	2003	0731		W	200	02-U	S139	6	2002	0116			
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,	
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JΡ,	ΚE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	
			PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,	
			IJA .	UG.	US.	UZ.	VN.	YU.	7.A.	7.M.	7W.	AM.	A7	BY.	KG.	KZ.	MD.	RU.	

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TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                             20020116
PRAI WO 2002-US1396
     The invention provides a method for promoting cardiac tissue repair and/or
      inhibiting or reducing vascular occlusion or restenosis, comprising
      administering to the cardiac tissue a therapeutically effective amount of an
      angiogenic thrombin derivative peptide. The invention also provides methods
      for stimulating revascularization. In yet another embodiment, the
      invention discloses the use of thrombin derivative peptides in the manufacture
of a
     medicament for the methods described.
     34346-01-5, Lactic acid-glycolic acid
IT
     copolymer
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
         (microparticles; thrombin-derived peptides for promoting cardiac tissue
        repair)
     37259-58-8, Serine esterase
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (serine esterase conserved sequence;
         thrombin-derived peptides for promoting cardiac tissue repair)
IT
      93674-98-7
     RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
      (Biological study)
         (thrombin-derived peptides for.promoting cardiac tissue repair)
      121341-81-9 497221-38-2 566137-83-5
IT
      566137-84-6
     RL: DEV (Device component use); PAC (Pharmacological activity); PRP
      (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
         (thrombin-derived peptides for promoting cardiac tissue repair)
RETABLE
                        |Year | VOL | PG
   Referenced Author
                                             Referenced Work
                                                                   Referenced
                        (RPY) (RVL) (RPG)
                                                                 File
          (RAU)
                                                  (RWK)
 |GENERAL PHARMACOLOGY|HCAPLUS
                        2000 35
                                     249
Norfleet, A
                        |2000 |8
                                     204
                                            WOUND REPAIR AND REG MEDLINE
Stiernberg, J
Univ Texas
                        1988
                                            WO 8803151 A
                                                                 HCAPLUS
Univ Texas
                                            WO 0204008 A
                                                                 HCAPLUS
                        2002
L41 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
     2003:395944 HCAPLUS
ΔN
DN
      139:191912
     PAR1-dependent and independent increases in COX-2 and PGE2 in human
TТ
      colonic myofibroblasts stimulated by thrombin
      Seymour, Michelle L.; Zaidi, Nosheen F.; Hollenberg, Morley D.;
AU
     MacNaughton, Wallace K.
     Mucosal Inflammation Research Group, University of Calgary, Calgary, AB,
CS
     T2N 4N1, Can.
     American Journal of Physiology (2003), 284(5, Pt. 1), C1185-C1192
so
      CODEN: AJPHAP; ISSN: 0002-9513
      American Physiological Society
PR
DT
      Journal
T.A
      English
      Subepithelial myofibroblast-derived prostaglandin E2 (PGE2) regulates
· AB
      epithelial chloride secretion in the intestine. Thrombin is elevated in
      inflammatory conditions of the bowel. Therefore, we sought to determine a role
      for thrombin in regulating PGE2 synthesis by colonic myofibroblasts.
      Incubation of cultured CCD-18Co colonic myofibroblasts with thrombin, the
     proteinase-activated receptor 1 (PAR1)-activating peptide (Cit-NH2), and
     peptides corresponding to 2 noncatalytic regions of thrombin (TP367 and
```

TP508) for 18 h increased both cyclooxygenase (COX)-2 expression

(immunocytochem.) and PGE2 synthesis (enzyme immunoassay). Inhibition of

thrombin by D-Phe-Pro-Arg-chloromethylketone (PPACK) did not significantly reduce PGE2 synthesis, which remained elevated compared with control. We also investigated the basic fibroblast growth factor (bFGF) dependence of thrombin-induced PGE2 elevations. Recombinant human bFGF concentration dependently increased PGE2 synthesis, and a bFGF neutralizing antibody inhibited PGE2 synthesis induced by TP367 and TP508 (.apprx.40%) and by thrombin (.apprx.20%) (but not Cit-NH2). Thrombin, therefore, upregulates COX-2-derived PGE2 synthesis by both catalytic cleavage of PAR1 and bFGF-dependent noncatalytic activity. This presents a novel mechanism by which intestinal myofibroblasts might regulate epithelial chloride secretion.

IT 121341-81-9, TP 508

ס.זם גידים ס

RL: BSU (Biological study, unclassified); BIOL (Biological study) (non-catalytic fragment of thrombin; PAR1-dependent and independent increases in COX-2 and PGE2 in human colonic myofibroblasts stimulated by thrombin)

RETABLE					•
Referenced Author	Year	VOL	PG	Referenced Work	Referenced
(RAU)	(RPY)	(RVL)	(RPG)	(RWK)	File
=======================================	+=====	h=====		+======================================	-=======
Bagdy, D	1976	45	669	Methods Enzymol	HCAPLUS
Bahou, W	1993	82	1532	Blood	HCAPLUS
Bar-Shavit, I	1984	23	397	Biochemistry	I
Bar-Shavit, R	1986	485	335	Ann NY Acad Sci	MEDLINE
Bar-Shavit, R	1995	31	86	Isr J Med Sci	MEDLINE
Bar-Shavit, R	1991	112	335	J Cell Biol	HCAPLUS
Bar-Shavit, R	1993	123	1279	J Cell Biol	HCAPLUS
Bar-Shavit, R	1986	83	976	Proc Natl Acad Sci U	HCAPLUS
Bar-Shavit, R	1983	220	728	Science	HCAPLUS
Bern, M	1989	83	1810	J Clin Invest	HCAPLUS
Berschneider, H	1992	89	484	J Clin Invest	HCAPLUS
Bing, D	1981	370	496	Ann NY Acad Sci	HCAPLUS
Bing, D	1986	485	104	Ann NY Acad Sci	MEDLINE
Bode, W	1989	8	3467	EMBO J	HCAPLUS
Boughton-Smith, N	1993	110	1189	Br J Pharmacol	HCAPLUS
Buresi, M	2001	281	G323	Am J Physiol Gastroi	HCAPLUS
Carney, D	1986	12	231	Semin Thromb Hemost	HCAPLUS
Chamouard, P	1995	7	1183	Eur J Gastroenterol	MEDLINE
Coughlin, S	1999	96	11023	Proc Natl Acad Sci U	HCAPLUS
Derian, C	1997	232	1	Exp Cell Res	HCAPLUS
Ellis, C	1999	274	13718	J Biol Chem	HCAPLUS
Gordon, E	1986	141	650	Biochem Biophys Res	HCAPLUS
Grandaliano, G	2000	11	1016	J Am Soc Nephrol	HCAPLUS
Herbert, J	1994	303	227	Biochem J	HCAPLUS
Hinterleitner, T	1996	271	C1262	Am J Physiol Cell Ph	HCAPLUS
Hollenberg, M	1996	169	491	J Cell Physiol	HCAPLUS .
Kage, K	1999	254	259	Biochem Biophys Res	HCAPLUS
Kawaguchi, H	1995	96	923	J Clin Invest	HCAPLUS
Komuro, T	1990	53	1	Arch Histol Cytol	MEDLINE
Laszlo, F	1994	113	1131	Br J Pharmacol	HCAPLUS
Peterson, J	1989	245	857	Science	HCAPLUS
Rasmussen, U	1991	288	123	FEBS Lett	HCAPLUS
Sasaki, E	1998	27	S21	J Clin Gastroenterol	
Sower, L	1999	247	422	Exp Cell Res	HCAPLUS
Stadnicki, A	1997	42	2356	Dig Dis Sci	MEDLINE
Stiernberg, J	2000	8	204	Wound Repair Regen	MEDLINE
Tanioka, T	2000	275	32775	J Biol Chem	HCAPLUS
Valentich, J	1997	272	C1513	Am J Physiol Cell Ph	HCAPLUS
Vouret-Craviari, V	1993	289	209	Biochem J	HCAPLUS
Vu, T	1991	64	1057	Cell	HCAPLUS
Wadleigh, D	1999	264	865	Biochem Biophys Res	HCAPLUS
Weiss, R	1993	268	5724	J Biol Chem	HCAPLUS

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L41 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
     2003:133077 HCAPLUS
AN
DN
     138:180761
     Methods for promoting healing of chronic dermal ulcers
ΤI
     Carney, Darrell H.
IN
     The Board of Regents, the University of Texas System, USA
PΑ
     PCT Int. Appl., 19 pp.
SO
     CODEN: PIXXD2
     Patent
DТ
LΑ
     English
FAN.CNT 1
                      KIND DATE
                                           APPLICATION NO. DATE
     PATENT NO.
     ______
                            _____
                                            _____
                    A2 20030220
A3 20031211
                                            WO 2002-US1151
                                                              20020116
                            20030220
PΙ
     WO 2003013569
     WO 2003013569
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                             20010727
PRAI US 2001-308198P P
     Disclosed is a method of promoting healing of a chronic dermal skin ulcer,
     such as a diabetic ulcer, in a subject. The method comprises the step of
     contacting the chronic dermal skin ulcer with an effective amount of an
     agonist of the non-proteolytically activated thrombin receptor.
IT
     497221-38-2
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (thrombin receptor agonists promoting healing of chronic dermal ulcers
        resulting from diabetes)
     ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
     2002:912091 HCAPLUS
AN
DN
     139:138483
     Controlled release of an osteogenic peptide from injectable biodegradable
TΙ
     polymeric composites
     Hedberg, Elizabeth L.; Tang, Andrew; Crowther, Roger S.;
ΑU
     Carney, Darrell H.; Mikos, Antonios G.
     Department of Bioengineering, Rice University, Houston, TX, 77251-1892,
CS
     USA
     Journal of Controlled Release (2002), 84(3), 137-150
SO
     CODEN: JCREEC; ISSN: 0168-3659
PB
     Elsevier Science Ltd.
     Journal
DT
     English
LA
     Poly(D,L-lactic-co-glycolic acid)/poly(ethylene
AB
     glycol) (PLGA/PEG) blend microparticles loaded with the osteogenic peptide
     TP508 were added to a mixture of poly(propylene fumarate) (PPF),
     poly(propylene fumarate)-diacrylate (PPF-DA), and sodium chloride (NaCl)
     for the fabrication of PPF composite scaffolds that could allow for tissue
     ingrowth as well as for the controlled release of TP508 when implanted in
     an orthopedic defect site. In this study, PPF composites were fabricated
     and the in vitro release kinetics of TP508 were determined TP508 loading
     within the PLGA/PEG microparticles, PEG content within the PLGA/PEG
     microparticles, the microparticle content of the PPF composite polymer
     component, and the leachable porogen initial mass percent of the PPF
     composites were varied according to a fractional factorial design and the
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effect of each variable on the release kinetics was determined for up to 28

days. Each composite formulation released TP508 with a unique release profile. The initial release (release through day 1) of the PLGA/PEG microparticles was reduced upon inclusion in the PPF composite formulations. Day 1 normalized cumulative mass release from PPF composites ranged from 0.14±0.01 to 0.41±0.01, whereas the release from PLGA/PEG microparticles ranged from 0.31±0.02 to 0.58±0.01. After 28 days, PPF composites released 53±4% to 86±2% of the entrapped peptide resulting in cumulative mass releases ranging from 0.14±0.01 µg TP508/mm3 scaffold to 2.46±0.05 µg TP508/mm3 scaffold. The results presented here demonstrate that PPF composites can be used for the controlled release of TP508 and that alterations in the composite's composition can lead to modulation of the TP508 release kinetics. These composites can be used to explore the effects varied release kinetics and dosages on the formation of bone in vivo.

IT 34346-01-5, Lactic acid-glycolic acid

copolymer

RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(blend; controlled release of osteogenic peptide from injectable biodegradable polymeric composites)

IT 121341-81-9, TP 508

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (controlled release of osteogenic peptide from injectable biodegradable polymeric composites)

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- L41 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 2002:309818 HCAPLUS
- DN 136:336176
- TI Compositions containing DNA, Tat peptide-nucleic acid binder conjugates, and cationic lipids for cell transfections
- IN Hawley-Nelson, Pamela; Lan, Jianqing; Shih, Pojen; Jessee, Joel A.; Schifferli, Kevin P.; Gebeyehu, Gulilat; Ciccarone, Valentina C.; Evans, Krista L.
- PA Life Technologies, Inc., USA
- SO U.S., 108 pp., Cont.-in-part of U.S. 6,051,429.
 - CODEN: USXXAM
- DT Patent
- LA English
- FAN. CNT 5

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	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
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	US 2003144230	A1	20030731		US 2002-200879	20020723 <
PRAI	US 1997-818200	A2	19970314	<		
	US 1995-477354	B2	19950607	<		
	US 1996-658130	A2	19960604	<		
	US 1998-39780	A 1	19980316	<		
	US 2001-911569	A1	20010723			
70.75	The manager into	ntion	provided a	omnna	useful for tran	efecting cells

The present invention provides compns. useful for transfecting cells comprising nucleic acid complexes with Tat peptide, wherein the peptide is covalently coupled to a nucleic acid-binding group, and cationic lipids as transfection agents. Inclusion of peptides in transfection compns. or covalent attachment of peptides to transfection agents results in enhanced transfection efficiency. Methods for the preparation of transfection compns. and methods of using these transfection compns. as intracellular delivery agents are also disclosed.

IT 93674-98-7

RL: PRP (Properties)

(unclaimed sequence; compns. containing DNA, Tat peptide-nucleic acid binder conjugates, and cationic lipids for cell transfections)

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- ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN L41
- 2002:181819 HCAPLUS ΑN
- DN 137:362953
- Thrombin peptide, TP508, stimulates angiogenic responses in animal models ΤI of dermal wound healing, in chick chorioallantoic membranes, and in cultured human aortic and microvascular endothelial cells
- Norfleet, Andrea M.; Bergmann, John S.; Carney, Darrell AU
- Chrysalis BioTechnology, Inc., Galveston, TX, USA
- General Pharmacology (2000), 35(5), 249-254 CODEN: GEPHDP; ISSN: 0306-3623 SO
- Elsevier Science Inc. PBDTJournal
- LΑ English
- The α -thrombin peptide, TP 508, accelerates the healing of AB full-thickness wounds in both normal and ischemic skin. In wounds treated with TP 508, a pattern of increased vascularization is consistently observed both grossly and microscopically when compared to wounds treated with saline. One possible mechanism by which the peptide accelerates wound healing is by promoting revascularization of granulation tissue at the injured site. To evaluate the angiogenic potential of TP 508, the peptide was tested in the chick embryo chorioallantoic membrane (CAM), where it increased the d. and size of CAM blood vessels relative to controls. Addnl., TP 508 stimulated chemokinesis and chemotaxis in a dose-dependent fashion in cultured human aortic and human microvascular endothelial cells. Taken together, these in vivo and in vitro data support an angiogenic role for TP 508 in wound healing. A working model is presented to explain how this 23-amino-acid peptide, which lacks proteolytic activity, is generated during wound healing and contributes to the nonproteolytic functions associated with α -thrombin during tissue repair.
- **121341-81-9**, TP 508 IT
 - RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(TP 508 stimulation of angiogenic responses in animal models of dermal wound healing in chick chorioallantoic membranes and in cultured human aortic and microvascular endothelial cells)

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TI
     Carney, Darrell H.; Crowther, Roger S.; Simmons, David
IN
     J.; Yang, Jinping; Redin, William R.
     Board of Regents, the University of Texas Systems, USA
PΑ
SO
     PCT Int. Appl., 27 pp.
     CODEN: PIXXD2
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     PATENT NO.
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
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             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                            EP 2001-954752
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             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
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os
     MARPAT 136:129084
     Disclosed is a method of stimulation bone growth at a site in a subject in
AB
     need of osteoinduction. The method comprises the step of administering a
     therapeutically effective amount of an agonist of the non-proteolytically
     activated thrombin receptor to the site.
     93674-98-7 121341-81-9, TP508 390773-29-2
IT
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
```

(Biological study); USES (Uses)

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(stimulation of bone growth with thrombin peptide derivs.)
    26100-51-6, Polylactic acid 26124-68-5,
TT
    Polyglycolic acid 34346-01-5
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (stimulation of bone growth with thrombin peptide derivs.)
    ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
L41
    2002:51284 HCAPLUS
ΑN
    136:96054
DN
    Methods of therapy with thrombin-derived peptides for promoting cardiac
ΤI
    tissue repair
    Carney, Darrell H.
IN
    The Board of Regents, the University of Texas System, USA
PA
    PCT Int. Appl., 24 pp.
SO
    CODEN: PIXXD2
DТ
    Patent
    English
LΑ
FAN.CNT 1
    PATENT NO.
                      KIND DATE
                                           APPLICATION NO.
                                                             DATE
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                      A3
                            20020822
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    US 2002061852
                            20020523
                                           US 2001-904090
                                                             20010712 <--
                       A1
    EP 1253937
                       A2
                            20021106
                                           EP 2001-957136
                                                             20010712 <--
    EP 1253937
                       В1
                            20030910
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                           AT 2001-1957136
    AT 249238
                       E
                            20030915
                                                             20010712 <--
                                           JP 2002-508462
                                                             20010712 <--
    JP 2004502739
                       T2
                            20040129
                                           US 2002-50611
    US 2002187933
                       A1
                            20021212
                                                             20020116 <--
PRAI US 2000-217583P
                       P
                            20000712
    US 2001-904090
                       Α1
                            20010712
                                      <--
    WO 2001-US21944
                       W
                            20010712
                                      <--
    The present invention relates to a method for promoting cardiac tissue
AΒ
    repair comprising administering to the cardiac tissue a therapeutically
    effective amount of an angiogenic thrombin-derived peptide and/or inhibiting
    or reducing vascular occlusion or restenosis. The invention also relates
     to methods of stimulating revascularization. In yet another embodiment,
     the invention relates to the use of thrombin-derived peptides in the
    manufacture of a medicament for the methods described herein.
     93674-98-7 121341-81-9
IT
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (methods of therapy with thrombin-derived peptides for promoting
        cardiac tissue repair)
IT
     34346-01-5, Poly(lactic acid-glycolic acid)
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (microparticles; methods of therapy with thrombin-derived peptides for
        promoting cardiac tissue repair)
    ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
L41
     2001:720859 HCAPLUS
AN
DN
     136:31619
    Acceleration of rat femoral fracture healing by a synthetic thrombin
TI
```

peptide

- AU Simmons, D. J.; Yang, J.; Yang, S.; Bi, L. X.; Buford, W. L.; Turner, R. T.; Crowther, R.; Carney, D. H.
- CS Department of Orthopaedic Surgery and Rehabilitation, University of Texas Medical Branch, Galveston, TX, 77555-0892, USA
- Calcium Metabolism: Comparative Endocrinology, [International Satellite Symposium], 2nd, San Francisco, CA, United States, Nov. 30, 1998 (1999), Meeting Date 1998, 145-151. Editor(s): Danks, Janine. Publisher: BioScientifica Ltd., Bristol, UK. CODEN: 69BVZS
- DT Conference
- LA English
- AB The authors studied the effects of the 23-amino acid fragment of the human thrombin mol. TP508 and basic fibroblast growth factor (bFGF) on bone healing in immature and mature rats. TP508 enhanced mech. strength and accelerated progression of the healing process to a greater extent than bFGF. A single dose of 1 µg TP508 doubled the initial rate at which mech. strength was returned to the limb.
- IT 121341-81-9

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(thrombin peptide TP508 acceleration of rat femoral fracture healing)

RETABLE

KBIIIDEE					
Referenced Author	Year	VOL	PG	Referenced Work	Referenced
(RAU)	(RPY)	(RVL)	(RPG)	(RWK)	File
(1010)			(L
	+====-	+====-	+===	T=====================================	
Bak, B	1992	13	289	Bone	MEDLINE
Bonnarens, F	1984	2	97	Journal of Orthopaed	MEDLINE
Burny, F	1987		123	Fracture Healing	
Carney, D	1992	89	1469	Journal of Clinical	HCAPLUS
Connolly, J	1979		547	Electrical Propertie	i
Glenn, K	1988	2	65	Peptide Research	
Grills, B	1997	15	235	Journal of Orthopaed	HCAPLUS
Hinsenkamp, M	1979		267	Fracture Healing	
Kawaguchi, H	1994	135	774	Endocrinology	HCAPLUS
Kim, D	1994	160	573	Journal of Cell Phys	HCAPLUS
Kurdy, N	1996	27	143	Injury	MEDLINE
Lind, M	1993	64	553	Acta Orthopedica Sca	MEDLINE
Odedra, R	1991	49	111	Pharmacological Ther	HCAPLUS
Simmons, D	1980		283	Fundamental and Clin	!
Trueta, J	1974	105	11 -	Clinical Orthopedics	MEDLINE

- L41 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 2001:91527 HCAPLUS
- DN 134:157557
- TI Synthetic peptide neutrophil cell chemotactic agents
- IN Carney, Darrell H.; Ramakrishnan, Shyam
- PA Chrysalis Biotechnology, Inc., USA
- SO U.S., 15 pp. CODEN: USXXAM
- DT Patent
- LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION	ON NO.	DATE	
						 -	
PI	US 6184342	B1	20010206	US 1994-33	0594	19941028	<
	US 6602978	B1	20030805	US 2000-64	14038	20000822	<
	US 2002032314	A 1	20020314	US 2001-77	77328	20010205	<
DDAT	115 1994-330594	Δ2	19941028	<			

AB These compns. are new synthetic peptides and antibodies which are potent chemotactic agents for human neutrophils, presented with methods for their use. The specificity of these peptides is amino acid sequence specific for binding to a heretofore unidentified receptor on the surface of

neutrophils. Neutrophil response to this peptide is specific, since monocytes and fibroblasts do not show any expression of this receptor. Antibodies against these peptides block the chemotactic response. Such antibodies are useful to modulate neutrophil recruitment to a wound site for enhancing or inhibiting inflammation and early effects of wound healing.

IT 121341-81-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(synthetic peptide neutrophil cell chemotactic agents)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
=======================================	+=====	+==== -	⊦=====·	+======================================	+=======
Bar-Shavit, R	1986	83	976	Proc Natl Acad Sci U	HCAPLUS
Belloni, P	1992	43	20	Microvas Res	HCAPLUS
Brass	1998			US 5840499	HCAPLUS
Carney, D	1978	95	13	J Cell, Physiol	HCAPLUS
Carney, D	1992	89	1469	J Clin Invest	HCAPLUS
Carney, D	1992	18	91	Semin Thromb Hemost	MEDLINE
Carney, D	1992		351	Thrombin Structure a	HCAPLUS
Cooper	1986		93	The Biochemical Basi	HCAPLUS
Fraker, P	1978	80	849	Biochem Biophys Res	HCAPLUS
Gurwitz, D	1988	85	3440	Proc Natl Acad Sci U	HCAPLUS
Harlow, E	1988		726	Antibodies:a laborat	
He, C	1991	146	131	J Cell Physiol	HCAPLUS
Kalmer, J	1988	110	275	J Immunol Meth	
Mansfield, P	1990	111	3077	J Cell Biol	HCAPLUS
Naldini, A	1993	147	367	Cell Immunol	HCAPLUS
Perez-Rodriguez, R	1981	5	347	Cell Biol Int Rep	HCAPLUS
Rasmussen, Ū	1991	288	123	FEBS Letters	HCAPLUS
Stiernberg, J	1993	70	158	Thrombosis and Haemo	HCAPLUS
van Obberghen-Schilling	1993	19	378	Semin Thromb Hemos	MEDLINE
Vu, T	1991	64	1057	Cell	HCAPLUS
Zhong, C	1992	267	16975	J Biol Chem	HCAPLUS

- L41 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 2000:344454 HCAPLUS
- DN 132:334800
- TI Preparation of peptides for regeneration of nerve cell
- IN Nishimura, Yoshihiko; Suzuki, Yoshihisa; Tanihara, Masao; Hashimoto, Tadashi
- PA Kuraray Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 17 pp. CODEN: JKXXAF
- DT Patent
- LA Japanese
- FAN.CNT 1

PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
PI JP 200014353	31 A2	20000523		JP 1999-227108	19990811 <
PRAI JP 1998-2704	98 A	19980909	<		

OS MARPAT 132:334800

AB A nerve regenerating material immobilized on a support (in particular polysaccharide gel, more specifically alginic acid gel or crosslinked alginic acid gel), at least one peptide selected from a peptide of formula X-A-D-E-G-J-L-M-Pro-Q-Y (X = H, MeCO, MeCO-Lys; A = Ser, Thr; D = Ile, Val, Leu; E = Lys, Arg; G = Ile, Val, Leu; J = Gly, Ala; L = Ile, Val, Leu; M = Gly, Ala; Q = Gly, Ala, Gly-Lys-Lys-Gly; Y = OH, or NH2), H-Ala-Gly-Tyr-Lys-Pro-Asp-Glu-Gly-Lys-Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val-OH, H-Cys-Leu-Asn-Gly-Gly-Val-Ala-Met-His-Ile-Glu-Ser-Leu-Asp-Ser-Tyr-Thr-Cys-OH, H-Ser-Ile-Lys-Val-Ala-Val-OH,

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Ac-Lys-Ser-Ile-Lys-Val-Ala-Val-OH, H-Asn-Pro-Gly-Ala-Ser-Ala-Ala-Pro-Cys-
     Cys-Val-Pro-Gln-Ala-Leu-Glu-OH , H-Val-Gly-Val-Ala-Pro-Gly-OH,
     Ac-Lys-Val-Gly-Val-Ala-Pro-Gly-OH and/or its salt or a bioabsorbable tube
     packed with above nerve regenerating material is prepared This material is
     useful for proliferation of nerve cell or regeneration of nerve tissues.
     Fourteen peptides were prepared by the solid phase method and immobilized on
     a crosslinked alginic acid gel, and each immobilized peptide was packed in
     a poly(glycolic acid) tube. The latter tube-packed material
     exhibited good regeneration of peripheral nerve (sciatic nerve) in cat.
     121341-81-9DP, immobilized on crosslinked alginic acid gel and
     packed in poly(glycolic acid) tube 121341-81-9P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of immobilized peptides for regeneration of nerve cell)
    ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
     2000:254039 HCAPLUS
AN
DN
     132:289590
     Peptide-enhanced cationic lipid transfections
TI
     Hawley-Nelson, Pamela; Lan, Jianqing; Shih, Pojen; Jessee, Joel A.;
IN
     Schifferli, Kevin P.; Gebeyehu, Gulilat
     Life Technologies, Inc., USA
PA
     U.S., 103 pp., Cont.-in-part of U.S. 5,736,392.
SO
     CODEN: USXXAM
     Patent
DT
     English
LA
FAN.CNT 5
                      KIND DATE
                                           APPLICATION NO.
                                                            DATE
     PATENT NO.
                      ·---
                            20000418
                                           US 1997-818200
                                                            19970314 <--
PΙ
     US 6051429
                      Α
     US 5736392
                      Α
                            19980407
                                           US 1996-658130
                                                            19960604 <--
                            19980917
                                           WO 1998-US5232
                                                            19980316 <--
     WO 9840502
                     A1
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
             FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
             GA, GN, ML, MR, NE, SN, TD, TG
     AU 9865622
                       A1
                            19980929
                                           AU 1998-65622
                                                            19980316 <--
                                           EP 1998-911737
                                                            19980316 <--
     EP 1007699
                       Α1
                            20000614
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
                            20011009
                                           JP 1998-539899
                                                            19980316 <--
     JP 2001517939
                       T2
     US 6376248
                       В1
                            20020423
                                           US 1998-39780
                                                            19980316 <--
                            20030731
                                           US 2002-200879
                                                            20020723 <--
     US 2003144230
                       A1
                            19950607
PRAI US 1995-477354
                       В2
                       A2
                            19960604
     US 1996-658130
                                      <--
     US 1997-818200
                            19970314
                       A
     US 1998-39780
                       A1
                            19980316
                                      <--
     WO 1998-US5232
                       W
                            19980316
                                      <--
     US 2001-911569
                       A1
                            20010723
     The present invention provides compns. useful for transfecting eukaryotic
AB
     cells comprising nucleic acid complexes with peptides, wherein the peptide
     is optionally covalently coupled to a nucleic acid-binding group, and
     cationic lipids or dendrimers as transfection agents. The invention also
     provides transfection compns. in which a peptide is covalently linked to
     the transfection agent (lipid, cationic lipid or dendrimer). Inclusion of
     peptides or modified-peptides in transfection compns. or covalent
     attachment of peptides to transfection agents results in enhanced
     transfection efficiency. Methods for the preparation of transfection compns.
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and methods of using these transfection compns. as intracellular delivery agents and extracellular targeting agents are also disclosed.

IT 93674-98-7

RL: PRP (Properties)

(unclaimed sequence; peptide-enhanced cationic lipid transfections)

RETABLE	, 1	.			· · · · · · · · · · · · · · · · · · ·
Referenced Author	Year	VOL	PG	Referenced Work	Referenced
(RAU)	(RPY)	(RVL)	(RPG)	(RWK)	File
	+=====	+====- '	+===== '	+======================================	+=== <u>=</u> ================================
Anon				WO A91	
Anon	1990			EP 0359347	HCAPLUS
Anon	1991			WO 16024	
Anon	1992			EP 0544292	HCAPLUS
Anon	1992			WO 9213570	HCAPLUS
Anon	1992			AU B-2652692	
Anon	1993			WO 9307282	HCAPLUS
Anon	1993			WO 9307283	HCAPLUS
Anon	1993			WO 9319768	HCAPLUS
Anon	1994		ļ	WO 9404696	HCAPLUS
Anon	1994			WO 9423751	HCAPLUS
Anon	1994			WO 9423751	HCAPLUS
Anon	1995			WO 9502397	HCAPLUS
Anon	1995		ļ	WO 9524221	HCAPLUS
Anon	1995			WO 9531557	HCAPLUS
Anon	1996		[WO 9601841	HCAPLUS
Anon	1996			WO 9605218	HCAPLUS
Anon	1996			WO 9605218	HCAPLUS
Anon	1996		ļ	WO 9610038	HCAPLUS
Anon	1996			WO 9622765	HCAPLUS
Beug	1994			US 5354844	HCAPLUS
Cotten	1992	89	6094	Proc Natl Acad Sci U	1
Curiel, D	1992	3 .	147	Hum Gene Therapy	MEDLINE
Curiel, D	1991	88	8850	Proc Natl Acad Sci U	1
Epand	1992	32	309	Biopolymers	HCAPLUS
Eppstein	1990			US 4946787	HCAPLUS
Feldhaus	1998		ļ	US 5759805	HCAPLUS
Flotte	1997		ļ	US 5658776	HCAPLUS
Frechet	1996			US 5587441	HCAPLUS
Fretchet	1996			US 5587446	HCAPLUS
Gao	1998			US 5795587	HCAPLUS
Hedstrand	1996			US 5560929	HCAPLUS
Jessee	1996			US 5578475	HCAPLUS
Liljistrom, P	1991	9	1356	Biotech	
Meyer	1996		ļ	US 5574142	HCAPLUS
Murata	1991	179	1050	Biochem Biophys Res	HCAPLUS
Paul	1998			US 5736387	HCAPLUS
Phalen	1991	112	615	J Cell Biol	HCAPLUS
Short	1996			US 5589392	HCAPLUS
Szoka	1997			US 5661025	HCAPLUS
Tomalia	1994	,		US 5338532	HCAPLUS
Tomalia	1996			US 5527524	HCAPLUS .
Wagner, E	1992	89	6099	Proc Natl Acad Sci U	!
Watner, E	1992	89	7934	Proc Natl Acad Sci U	
Winnik	1993			US 5266106	HCAPLUS
Wu	1992			US 5166320	HCAPLUS

L41 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:771184 HCAPLUS

DN 130:57167

TI Peptides for the promotion of wound healing

IN Kakimaru, Yoshimi; Tanihara, Masao

PA Kuraray Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 10316581 A2 19981202 JP 1997-140885 19970515 <--

PRAI JP 1997-140885 19970515 <--

OS MARPAT 130:57167

AB Disclosed are peptides which are effective for the promotion of cell growth and cell adhesion. The peptides are immobilized on a substrate to use as an agent for wound healing and tissue regeneration. A peptide, Lys-Ser0Ile-Arg-Val-Ala-Ala-Pro-Gly, was immobilized on a crosslinked alginic acid gel to use as a wound dressing.

IT 121341-81-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(peptides for promotion of tissue healing)

- L41 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1998:93940 HCAPLUS
- DN 128:226614
- TI Enhancement of corneal epithelial wound healing by thrombin receptor activating peptide in the rat
- AU Hallberg, Csilla K.; Gill, Kuljit S.; Redin, William R.; Yannariello-Brown, Judith; Brysk, Miriam M.; Carney, Darrell H.; Trocme, Stefan D.
- CS Department of Ophthalmology and Visual Sciences, School of Medicine, Cornea Service and Eye Research Laboratory, The University of Texas Medical Branch, Galveston, TX, 77555-0787, USA
- SO Research Communications in Pharmacology and Toxicology (1997), 2(3), 129-136
 CODEN: RCPTFY; ISSN: 1087-1101
- PB PJD Publications Ltd.
- DT Journal
- LA English
- The effect of thrombin receptor-activating peptide (TRAP-508) on corneal AΒ epithelial cell migration and proliferation was studied in an established organ culture model of rat corneal epithelial wound healing. Epithelial migration was measured by photo image anal. at different TRAP-508 peptide concns. (0, 1.0, 10, and 100 $\mu g/mL)\,.$ Proliferative activity of corneal epithelial cells was assessed by 3H-thymidine uptake and autoradiog. at the wound site, at an area adjacent to the wound site, and at the periphery. A significant increase in the area of epithelial migration was demonstrated in 10, and 100 µg/mL TRAP-508 test groups, compared to a control group with no peptide. Autoradiog. revealed a significant increase in 3H-thymidine uptake in the area adjacent to the wound site in the TRAP-508 test groups, compared to both the control group with no peptide and the TRAP-G-517 (control peptide) test group. TRAP-508 accelerated closure of epithelial defects in a dose-dependent fashion and appeared to enhance proliferation of epithelial cells in migrating rat corneal epithelium. The authors' findings suggest that TRAP-508 may hold potential as a treatment for conditions with poor epithelial healing.
- IT 121341-81-9, TRAP 508

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(corneal epithelial wound healing enhancement by thrombin receptor activating peptide)

RETABLE

Referenced Author | Year | VOL | PG | Referenced Work | Referenced (RAU) | (RPY) | (RVL) | (RPG) | (RWK) | File

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______
Belloni, P
                      1992 43
                                  20
                                         |Microvas Res
                                                             HCAPLUS
                       1978
                            15
                                   1341
                                         Cell
                                                              HCAPLUS
Carney, D
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                                         J Cell Physiol
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Carney, D
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                       1992
                            89
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                                         J Clin Invest
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                                  1311
                                         Proc Natl Acad Sci U
Chen, L
Cromack, D
                      1992
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                                         J Surgical Research
                                                             MEDLINE
                                         Invest Ophthalmol Vi | HCAPLUS
                      1980
                             19
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Gipson, I
Glenn, K
                      1988
                             1
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                                          Peptide Res
                                                              HCAPLUS
                                         Invest Ophthalmol Vi
                      1993
                             34
                                   1011
Hallberg, C
                                                              HCAPLUS
                      1987
                             237
                                   1333
                                         Science
Mustoe, T
Pierce, G
                       1988
                             167
                                   974
                                         J Exp Med
                                                              HCAPLUS
                                         Thrombosis and Hemos
Stienberg, J
                             70
                       1993
                                   158
                                         Invest Ophthalmol Vi MEDLINE
                      |1994 |35
Trocme, S
                                  3051
    ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
    1997:119161 HCAPLUS
AN
DN
    126:135681
    Non-biological patch for hemostasis
ΤI
IN
    Pruss, Thaddeus P.; Will, James A.
    Clarion Pharmaceuticals Inc., USA
PA
    PCT Int. Appl., 50 pp.
SO
    CODEN: PIXXD2
DT
    Patent
LΑ
    English
FAN.CNT 1
                                        APPLICATION NO. DATE
                KIND DATE
    PATENT NO.
    ______
                          _ - - - - - - -
    WO 9640033 A1 19961219
                                        WO 1996-US6334 19960506 <--
PΙ
        W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,
            ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT,
            LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
            SG, SI
        RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
            IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML
                   A1 19961230
     AU 9656380
                                         AU 1996-56380
                                                        19960506 <--
PRAI US 1995-486979
                    Α
                           19950607 <--
    WO 1996-US6334
                     W
                           19960506 <--
     A hemostatic patch that is advantageously safe and inexpensive, comprises
ΆB
     a sponge, and an effective amount of \epsilon-aminocaproic acid and a
     thrombin receptor-activating peptide for promoting hemostasis.
     E-Aminocaproic acid is a hemostatic agent that inhibits
     fibrinolysis, accelerates the activity of thrombin and possesses
     antibacterial properties. Thrombin receptor-activating peptide activates
    platelets and promotes platelet aggregation. The patch is particularly
     effective for decreasing bleeding of parenchymal organs, as well as for
     topical use particularly in a bandage form. The bandage form comprises a
     backing member located contiguous with an exterior surface of the patch
     and opposite the wound contacting surface of the patch. A flap extends
     from the backing member and a medically acceptable adhesive can be applied
     onto the flap.
IT
     146367-84-2
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (hemostatic patch comprising \epsilon-aminocaproic acid and thrombin
        receptor-activating peptides in biodegradable matrix)
L41 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
AN
     1996:741563 HCAPLUS
     126:17181
DN
     Synergistic actions of a thrombin-derived synthetic peptide and a thrombin
ΤI
     receptor-activating peptide in stimulating fibroblast mitogenesis
```

Hollenberg, Morley D.; Mokashi, Shalini; Leblond, Lorraine; DiMaio, John

Dep. Pharmacol. Therapeutics Med., Univ. Calgary, Calgary, AB, T2N 4N1,

ΑU

CS

Can.

SO Journal of Cellular Physiology (1996), 169(3), 491-496 CODEN: JCLLAX; ISSN: 0021-9541

PB Wiley-Liss

DT Journal

LA English

We measured the ability of the thrombin receptor activating peptide, SFLLR-NH2 (P5A) to stimulate 3H-thymidine incorporation in hamster CCL-39 fibroblasts either alone or in combination with the thrombin-derived polypeptides, YPPWNKNFTENDLL (TDP-1) and AGYKPDEGKRGDACEGDSGGPFV (TDP-2). In the presence (but not absence) of the amino peptidase inhibitor amastatin (10 μ M), P5A alone (7.5 to 100 μ M) caused a 1.5-2-fold stimulation of thymidine incorporation above basal, even though this inhibitor did not abrogate the degradation of P5A by other peptidases present in the assay medium. Neither TDP-1 nor TDP-2 alone had any effect on thymidine incorporation. However, TDP-1 (30 to 90 µM) considerably augmented P5A-mediated thymidine incorporation at low P5A concns. (7.5 to 30 $\mu M) \,,$ shifting the P5A concentration-effect curve to the left. TDP-2 was inactive in this regard. The EC50 for this potentiating action of TDP-1 was approx. 40 μM. Further, thrombin, rendered proteolytically inactive by a low-mol.-weight bifunctional inhibitor, hirutonin-6, also acted synergistically with P5A to stimulate CCL-39 cell thymidine incorporation. We hypothesize that thrombin can cause its activation of its G-protein-coupled receptor, but also via the concurrent and synergistic interaction of its TDP-1 peptide domain with a sep. cell surface docking site.

IT 121341-81-9, AGYKPDEGKRGDACEGDSGGPFV

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(thrombin-derived synthetic peptide and thrombin receptor-activating peptide synergistic action in stimulating fibroblast mitogenesis)

L41 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:349670 HCAPLUS

DN 125:34044

TI Preparation of tetrasaccharide conjugates as inhibitors of cell adhesion.

IN Kretzschmar, Gerhard; Schmidt, Wolfgang; Sprengard, Ulrich; Bartnick, Eckart; Seiffge, Dirk; Kunz, Horst

PA Hoechst A.-G., Germany

SO Ger. Offen., 31 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

FAN.	CNT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4436164	A1	19960411	DE 1994-4436164	19941010 <
	US 5858994	Α	19990112	US 1995-509079	19950731 <
	EP 714903	A1	19960605	EP 1995-115588	19951004 <
	EP 714903	B1	20020515		
	R: AT, BE,	CH, DE	, DK, ES,	FR, GB, GR, IE, IT, LI	, LU, NL, PT, SE
	AT 217630	E	20020615	AT 1995-115588	19951004 <
	CA 2160100	AA	19960411	CA 1995-2160100	19951006 <
	JP 08325286	A2	19961210	JP 1995-261763	19951009 <
PRAI	DE 1994-4436164	A	19941010	<	
os	MARPAT 125:3404				
GI					•

^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB ZY(CH2)n(NHCO)pR2 [Z = branched tetrasaccharide residue; Y = O, NHCO; R2 = amino acid or oligopeptide residue, (cyclo)aliphatic residue, combination of aliphatic and heterocyclic residues, triphenylmethane dye; when Y = O and p = 1, then n = 2-10; when Y = NHCO and p = 0, n = 0-10; when Y = NHCO and p = 1, then n = 1-10], were prepared for treatment and diagnosis of diseases dependent on cell-cell adhesion, and as synthetic vaccines. Thus, title compound (I; R1 = H-Arg-Gly-Asp-Ala-), prepared via lactone (II), inhibited HL60 cell adhesion to recombinant P-selectin with IC50 = 0.01 mM.

IT 176244-98-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of tetrasaccharide conjugates as inhibitors of cell adhesion)

IT 177485-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of tetrasaccharide conjugates as inhibitors of cell adhesion)

IT 177485-26-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of tetrasaccharide conjugates as inhibitors of cell adhesion)

- L41 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1996:158245 HCAPLUS
- DN 124:343845
- TI Synthesis and biological activity of novel sialyl-LewisX conjugates
- AU Sprengard, Ulrich; Kunz, Horst; Huels, Christoph; Schmidt, Wolfgang; Seiffge, Dirk; Kretzschmar, Gerhard
- CS Hoechst AG, Frankfurt/Main, D-65926, Germany
- SO Bioorganic & Medicinal Chemistry Letters (1996), 6(5), 509-14 CODEN: BMCLE8; ISSN: 0960-894X
- PB Elsevier
- DT Journal
- LA English

GΙ

- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- AB Novel sialyl LewisX conjugates I [R = O(CH2)6NH2, O(CH2)6NHCOCH2CH2CO2H, R1, R2, R3, etc.] have been synthesized and evaluated as inhibitors of E-and P-selectin mediated cell adhesion in cell culture assays. The most potent conjugate in the static inhibition assays exhibited a significant and dose-dependent pharmacol. potency as inhibitor of the endotoxin-induced leukocyte adhesion to the endothelium of postcapillary venules in rats.
- IT 176244-98-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis and biol. activity of novel sialyl-LewisX conjugates)

- L41 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1995:963243 HCAPLUS
- DN 124:24242
- TI Applications of a new hydrophobicity parameter of amino acid side chains to quantitative structure-activity analyses of oligopeptides
- AU Akamatsu, Miki; Ueno, Tamio; Fujita, Toshio
- CS Dep. of Agricultural Chemistry, Kyoto Univ., Kyoto, 606-01, Japan
- SO ACS Symposium Series (1995), 606(Classical and Three-Dimensional QSAR in Agrochemistry), 229-39
 CODEN: ACSMC8; ISSN: 0097-6156

- PB American Chemical Society
- DT Journal
- LA English
- A new hydrophobicity parameter, $\pi\alpha$ for the side chain of amino AΒ acid residues was defined by quant. analyzing the composition of exptl. measured log P value of oligopeptides and N-acetyl oligopeptide amides. It is comprised not only of the intrinsic $\boldsymbol{\pi}$ value of side chain substituents but also of other substituent factors to promote the aqueous/hydrophobic phase transfer of peptides. However, factors attributable to the conformational effects induced by intramol. hydrogen-bonding such as β -turn and α -helix are not included in $\pi\alpha$. Structure-activity relationships for the platelet aggregation inhibition of the Arg-Gly-Asp-X (X: hydrophobic amino acid residue) series and for the opioid effects of two series of the gluten exorphin analogs, Tyr-Pro-X-Ser-Leu and Tyr-Pro-Ile-Gly-X (X: amino acid residue), were analyzed quant. using the $\pi\alpha$ parameter and with others when necessary. The $\pi\alpha$ parameter as the effective hydrophobicity index was shown to work nicely. The behaviors of outliers were reasonably explained by considering variations in the conformational equilibrium between extended and β -turned forms in the hydrophobic environment.
- IT 154331-63-2
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (platelet aggregation inhibitor; applications of a new hydrophobicity parameter of amino acid side chains to quant. structure-activity analyses of oligopeptides)
- L41 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1995:826253 HCAPLUS
- DN 123:237743
- TI Bioreactivity of titanium implant alloys
- AU Kerber, Susan J.
- CS Mat. Interface, Inc., Sussex, WI, 53089-2244, USA
- Journal of Vacuum Science & Technology, A: Vacuum, Surfaces, and Films (1995), 13(5), 2619-23 CODEN: JVTAD6; ISSN: 0734-2101
- PB American Institute of Physics
- DT Journal
- LA English
- A study was conducted regarding the adsorption of peptides on com. pure Ti AΒ and Ti-6Al-4V. The peptides used were arginine-glycine-aspartic acid-alanine (RGDA), arginine-glycine-aspartic acid-serine (RGDS), and arginine-phenylalanine-aspartic acid-serine (RFDS). The tripeptide RGD is known to be important for biol. specific adhesion reactions. This research was conducted to investigate the reason for a tendency toward thrombus formation with Ti-6Al-4V that is not observed with cp Ti. After argon plasma cleaning, coupons of the titanium alloys were inserted into solns. with variable concns. (0.0625-2 mg/mL) of an individual peptide group under constant temperature and time conditions. The samples were rinsed, dried, and analyzed with XPS. Adsorption isotherms were obtained by plotting the relative amount of peptide adhesion as a function of solution concentration It was postulated through the XPS and adsorption isotherm data that the major adhesion mechanism for the peptides to the titanium alloys was hydrogen bonding. Titanium and Ti-6Al-4V are hypothesized to react differently as implants because Ti-6Al-4V has a more electropos. surface, which allows fewer hydrogen bonds to form. Hydrophilic reactions were proposed to be of secondary importance during bioadhesion, influencing the structure of the second layer adsorbed. There was no correlation found between the net charge of the peptide groups and their adhesion to the alloys.
- IT 93674-98-7
 - RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(bioreactivity of titanium implant alloys)

L41 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:580006 HCAPLUS

DN 123:286699

TI Synthesis of an RGD-sialyl-Lewis glycoconjugate: a new highly active liqund for P-selectin

AU Sprengard, Ulrich; Kretzschmar, Gerhard; Bartnik, Eckart; Huels, Christoph; Kunz, Horst

CS Hoechst AG, Frankfurt, D-65926, Germany

Angewandte Chemie, International Edition in English (1995), 34(9), 990-3 CODEN: ACIEAY; ISSN: 0570-0833

PB VCH

DT Journal

LA English

GΙ

AB Adhesion hybrid I combines the structural elements of the RGD (Arg-Gly-Asp) motif with those of the sialyl LewisX ligand and is a highly active ligand for P-selectin in cell assays. The synthesis of I is described.

Ι

IT 169393-79-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis of RGD-sialyl-Lewis glycoconjugate as ligand for P-selectin)

IT 169393-76-4DP, resin-bound 169393-76-4P

169393-77-5P 169393-78-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of RGD-sialyl-Lewis glycoconjugate as ligand for P-selectin)

L41 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1994:260551 HCAPLUS

DN 120:260551

TI Determination of peptide hydrophobicity parameters by reversed-phase high-performance liquid chromatography

AU Rothemund, S.; Krause, E.; Ehrlich, A.; Bienert, M.; Glusa, E.; Verhallen, P.

- CS Institute of Molecular Pharmacology, Alfred-Kowalke-Strasse 4, Berlin, 10315, Germany
- SO Journal of Chromatography, A (1994), 661(1-2), 77-82 CODEN: JCRAEY; ISSN: 0021-9673
- DT Journal
- LA English

of

- The log kW values of fourteen potential fibrinogen receptor antagonist peptides (RGDX) determined by reversed-phase HPLC were correlated to hydrophobic parameters of the amino acid side-chain log P in position X of the tetrapeptides. Comparing the polymer columns with LiChrosorb RP-8, the correlation coefficient using a polyethylene column is higher (0.94) than that for RP-8 (0.88), which demonstrates the importance of a homogeneous hydrophobic surface and makes this method very suitable for the determination
 - the overall hydrophobicity of shorter peptides. The hydrophobicity parameters log kW of the RGDX peptides (-1.15 to 2.19) were used to investigate the influence of mol. parameters of X on the potency of RGDX in inhibiting platelet aggregation. The results confirm the importance of hydrophobicity for the contribution of X to the biol. activity of RGDX.
- IT 154331-49-4 154331-63-2
 - RL: BIOL (Biological study)
 (hydrophobicity and QSAR of, platelet aggregation inhibition in relation to)
- L41 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1993:536766 HCAPLUS
- DN 119:136766
- TI The role of thrombin and thrombin receptor activating peptide (TRAP-508) in initiation of tissue repair
- AU Stiernberg, Janet; Redin, William R.; Warner, W. Scott; Carney, Darrell H.
- CS Dep. Hum. Biol. Chem. Genet., Univ. Texas, Galveston, TX, 77555-0645, USA
- SO Thrombosis and Haemostasis (1993), 70(1), 158-62 CODEN: THHADQ; ISSN: 0340-6245
- DT Journal
- LA English
- To determine if thrombin or thrombin receptors are involved in wound healing, AΒ thrombin receptor-activating peptide (TRAP-508) or thrombin was applied to newly created wounds in rats. Treatment of full dermal dorsal incisions in rats with a single topical application ot TRAP-508 (500 pmoles or .apprx.1 μq/cm) in saline enhanced seven-day breaking strength 30 to 82% over saline-treated controls. Control wounds require .apprx.11.5 days to achieve breaking strength equivalent to TRAP-treated wounds at day seven. Thus, a single application of TRAP accelerated healing, shifting the time course forward by up to 4.5 days. Thrombin (109 pmoles or .apprx.0.3 μg/cm) also increased breaking strength, but only about 60% as well as TRAP:508. That TRAP works better than thrombin may reflect the ability of the peptide to elude natural thrombin inhibitors or may indicate that induction of excessive fibrin clot formation prevents thrombin from being fully effective. Histol. studies and angiog. showed that at day seven there was more type I collagen, less evidence of prolonged inflammation, and an increased number and maturity of capillaries in TRAP- and thrombin-treated incisions than in controls. These results suggest that TRAP enhancement of healing may relate to an early onset and completion of the inflammatory phase and an earlier stimulation of revascularization and fibroblastic collagen deposition.
- IT 121341-81-9
 - RL: BIOL (Biological study)
 (tissue repair mediation by)
- L41 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1993:116686 HCAPLUS
- DN 118:116686

- TI Tissue repair by thrombin-derived peptides in the rat AU Warren, Wesley C.; Mustoe, Thomas A.; Glenn, Kevin C.
- CS Monsanto Co., St. Louis, MO, 63167, USA
- SO Peptide Research (1992), 5(6), 331-5 CODEN: PEREEO; ISSN: 1040-5704
- DT Journal
- LA English
- Utilizing rat linear incision and full dermal excision models, the ability AΒ of 2 thrombin-derived peptides, p517 and p508 (corresponding to amino acids 517-530 and 508-530, resp., of human $\alpha\text{-prothrombin}$ and both containing the sequence Arg-Gly-Asp), to enhance tissue repair was investigated under normal and healing-impaired conditions. P508, at 0.5 ug peptide/wound, produced a 23% improvement in wound strength in a dose-dependent manner. Similarly, a single application of 0.5 μg p517 per 6-cm linear incision wound increased wound-breaking strength approx. 18% at nine days postsurgery. However, in glucocorticoid-stressed rats, the application of 0.5 μg p508 or 517 per wound did not influence steroid-impaired healing. In the full dermal skin excision wound model a single application of 0.5 µg p508 per wound at the time of surgery reduced average wound area at days 3 and 5, when healing was impaired by glucocorticoid administration. Wound area was also reduced by p508 treatment at day 3 in the normal animal, but this effect was not significant. P508 and p517 may activate sound fibroblast proliferation or stimulate other cell types of the wound site through an Arg-Gly-Asp-mediated interaction.
- IT 121341-81-9 146367-84-2
 RL: BIOL (Biological study)
 (wound healing promotion by)
- L41 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1992:420457 HCAPLUS
- DN 117:20457
- TI Enhancement of incisional wound healing and neovascularization in normal rats by thrombin and synthetic thrombin receptor-activating peptides
- AU Carney, D. H.; Mann, R.; Redin, W. R.; Pernia, S. D.; Berry, D.; Heggers, J. P.; Hayward, P. G.; Robson, M. C.; Christie, J.; et al.
- CS Med. Branch, Univ. Texas, Galveston, TX, 77550, USA
- SO Journal of Clinical Investigation (1992), 89(5), 1469-77 CODEN: JCINAO; ISSN: 0021-9738
- DT Journal
- LA English
- ΔR To better define thrombin-receptor interactions, the authors synthesized human thrombin peptides and identified binding domain peptides that bind thrombin receptors and activate mitogenic signals. Treatment of full dermal dorsal incisions with a single topical application of thrombin receptor-activating peptide (TRAP-508) or human α -thrombin in saline enhanced the 7-day incisional breaking strength in normal rats up to 82% or 55% over saline-treated controls, resp. Control wounds required .apprx.11.5 days to achieve breaking strength equivalent to TRAP-treated wounds at day 7. Thus, a single application of TRAP accelerated healing, shifting the time course forward by up to 4.5 days. Histol. comparisons at day 7 showed more type 1 collagen, less evidence of prolonged inflammation, and an increase in the number and maturity of capillaries in TRAP- and thrombin-treated incisions. Angiograms also showed 50-65% more functional vascularization going across thrombin- and TRAP-treated surgical incisions. Thus, α -thrombin and thrombin peptides, such as those released following injury, initiate or enhance signals required for neovascularization and wound healing. The ability to accelerate normal wound healing events with synthetic peptides representing receptor binding domains of human thrombin may offer new options for the management of wound healing in man.
- IT 121341-81-9, TRAP 508
 RL: BIOL (Biological study)

(skin wound healing enhancement by)

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L41 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
     1991:583848 HCAPLUS
ΑN
DN
     115:183848
     Development of a small RGD peptide fibrinogen receptor antagonist with
ΤI
     potent antiaggregatory activity in vitro
     Samanen, J.; Ali, F.; Romoff, T.; Calvo, R.; Sorenson, E.; Vasko, J.;
ΑU
     Storer, B.; Berry, D.; Bennett, D.; et al.
     Dep. Peptidomimetic Res., SmithKline Beecham Pharm. Res. Dev., King of
CS
     Prussia, PA, 19406-0939, USA
     Journal of Medicinal Chemistry (1991), 34(10), 3114-25
SO
     CODEN: JMCMAR; ISSN: 0022-2623
DT
     Journal
     English
LA
GΙ
Ac-Cys-MeArg-Gly-Asp-Pen-NH2 II
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The development of potent antithrombotic agents from the fibrinogen AΒ platelet receptor binding sequences Fg- α 572-575 [Ac-Arg-Gly-Asp-Ser-NH2 (I)] and Fg- γ 400-411 (His-His-Leu-Gly-Gly-Ala-Lys-Gln-Ala-Gly-Asp-Val), believed to be a cryptic RGD-type sequence, is described. Tetrapeptide I is capable of inhibiting platelet aggregation in vitro at high concns., IC50 91.3 \pm 0.1 μ M due to low platelet fibrinogen receptor affinity relative to fibrinogen. I is also unstable to plasma, suffering total loss of in vitro activity upon incubation in platelet rich plasma for 3 h (T1/2 90 min). Only modest improvements in potency were achieved with linear analogs of I, while dramatic results were achieved with cyclic analogs, culminating in the cyclic disulfide II (Pen = penicillamine) (SK&F 106760) with improved plasma stability (100% activity after 3 h), affinity, and potency. affinity of II is 2 orders of magnitude greater than that of I. The affinity of II constitutes a first potent small peptide entry into the class of novel antithrombotic agents called fibrinogen receptor antagonists.

IT 126053-52-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and antiaggregatory activity of)

- L41 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1990:403752 HCAPLUS
- DN 113:3752
- TI Synthetic peptides bind to high-affinity thrombin receptors and modulate thrombin mitogenesis
- AU Glenn, Kevin C.; Frost, Gloria H.; Bergmann, John S.; Carney, Darrell H.
- CS Monsanto Corp., USA
- SO Peptide Research (1988), 1(2), 65-73 CODEN: PEREEO; ISSN: 1040-5704
- DT Journal
- LA English
- AB Initiation of cell proliferation by thrombin (I) require signals generated by I interaction with specific high-affinity receptors and I enzymic activity. By using synthetic peptides representing various domains of I, a region adjacent to the proteolytic pocket of I which confers high-affinity binding and generation of mitogenic signals was identified. One peptide, representing residues 508-530 of human prothrombin

(p508-530), inhibits ≤70% of the specific binding of 125I-labeled $\alpha\text{-I}$ at concns. of <100 nM, enhances the ability of I to stimulate DNA synthesis, and stimulates DNA synthesis in cells treated with 25 ng PMA/mL. Thus, this peptide or a portion of this peptide appears to represent the high-affinity receptor binding domain of I. In contrast to the 23-amino acid peptide (p508-530), the tetrapeptide RGDA (p517-520) contained in this region competes for 125I-labeled I-thrombin binding at concns. of 100-2000 nM, but inhibits rather than stimulates the mitogenic effects of α -I thrombin. Nonhomologous peptides, or fibronectin-specific peptides (such as RGDS or GRGDSP) do not compete for 125I-labeled α -I binding and have no effect on thrombin mitogenesis. Therefore, peptides representing portions of the binding domain of I: (1) can generate receptor-occupancy related signals that enhance I mitogenesis and are themselves mitogenic in cells treated with PMA; or (2) in the case of RGDA (which may be too small to generate signals), can act as antagonists, inhibiting the mitogenic effects of I by preventing I-receptor interaction.

IT 121341-81-9

RL: BIOL (Biological study)

(of thrombin, high-affinity receptor binding of and mitogenesis with fibroblast by thrombin modulation by)

IT 93674-98-7

RL: BIOL (Biological study)

(thrombin binding to receptor on fibroblasts competition by and mitogenic effects of thrombin inhibition by)

- L41 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1990:158983 HCAPLUS
- DN 112:158983
- TI Preparation of peptides as blood platelet aggregation inhibitors
- IN Ali, Fadia El-Fehail; Samanen, James Martin; Shebuski, Ronald John
- PA SmithKline Beckman Corp., USA
- SO Eur. Pat. Appl., 56 pp.
- CODEN: EPXXDW
- DT Patent
- LA English
- FAN.CNT 1

FAN.	PATENT NO.	KIND	DATE	APPLICATION NO. DATE
DT	EP 341915	A2	19891115	EP 1989-304541 19890505 <
ΡI				EF 1909 304341 19090303 (
	EP 341915	A3	19901212	
	EP 341915	B1	19970917	
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	DK 8902229	Α	19891110	DK 1989-2229 19890505 <
	AT 158305	E	19971015	AT 1989-304541 19890505 <
	FI 8902208	Α	19891110	FI 1989-2208 19890508 <
	NO 8901870	A	19891110	NO 1989-1870 19890508 <
	HU 49891	A2	19891128	HU 1989-2203 19890508 <
	HU 205368	В	19920428	
	ZA 8903375	Α	19900425	ZA 1989-3375 19890508 <
	AU 8934588	A1	19891109	AU 1989-34588 19890509 <
	JP 02062892	A2	19900302	JP 1989-115915 19890509 <
	JP 2755351	B2	19980520	
	CN 1040203	Α	19900307	CN 1989-104419 19890509 <
	US 5849690	A	19981215	US 1992-918487 19920722 <
PRAI	US 1988-191515		19880509	<
	US 1989-335306		19890410	<
0.0	MADDAM 110.150000			

- OS MARPAT 112:158983
- GI For diagram(s), see printed CA Issue.
- AB X-(A)m-B-Gly-Asp-(C)n-Y [X = Arg, HArg, (Me2)Arg, (Et2)Arg, Ala, etc.; B = Arg, HArg, (Me2)Arg, (Et2)Arg, etc.; C = D- or L-amino acid residues, e.g., Tyr, Phe; Y = (substituted) amino, alkoxy, etc.; X = (substituted) amino; m, n = 0, 1] and the cyclic peptides I [A1 = D- or L-amino acid

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residue, e.g., Arg, HArg; B = D- or L-amino acid chosen from Arg, HArg,
    (Me2) Arg, (Et2) Arg, Lys; C1 = D- or L-amino acid residue, e.g., Tyr; Y =
    (substituted) amino, alkoxy; X = (substituted) amino, H; Z1 = D- or L-Cys,
    Pen, APmp; Z2 = any of the definitions given by Z1; m, n = 0, 1; HArg =
    homoarginine residue; Pen = L-penicillamine residue; APmp =
    2-amino-3,3-(cyclopentamethylene)-3-mercaptopropionic acid residue],
    useful as blood platelet aggregation inhibitors, are prepared
    Nα-AcCys(Et)-MeArg(Tos)-Gly-Asp(OChx)-Ser(Bzl)-Cys(4-MBzl)-MBHA
    [Chxe = cyclohexyl, MBzl = methylbenzyl, MBHA = methylbenzhydrylamine
    resin] (preparation given) was treated with HF (for removal of resin and
    deprotection), the crude product extracted with 50% HOAc, the resulting
solution
    diluted with deionized H2O, and the resulting mixture adjusted to pH 7.5 with
    concentrated NH4OH to give Nα-Ac-cyclo(S,S)-Cys-MeArg-Gly-Asp-Ser-Cys-NH2,
    which showed an IC50 of 1.1 mL against blood platelet aggregation.
    126053-52-9P
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of, as blood platelet aggregation inhibitor)
    126054-18-0DP, methylbenzhydrylamine resin-bound
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of, as intermediate for blood platelet aggregation inhibitors)
    ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
    1989:433675 HCAPLUS
    111:33675
    Thrombin-derived polypeptides, pharmaceutical compositions containing them
    and their use in wound healing, inhibition of scar formation, inhibition
    of tumor metastasis or angiogenesis, etc
    Carney, Darrell H.; Glenn, Kevin C.
    University of Texas System, USA
    PCT Int. Appl., 47 pp.
    CODEN: PIXXD2
    Patent
    English
FAN.CNT 2
                                         APPLICATION NO. DATE
    PATENT NO.
                     KIND DATE
                                         -----
     ----
                           ______
                     A2
                           19880505
                                          WO 1987-US2882
                                                          19871030 <--
    WO 8803151
                     A3
                           19880728
    WO 8803151
        W: AT, AU, BB, BG, BR, CH, DE, DK, FI, GB, HU, JP, KP, KR, LK, LU,
            MC, MG, MW, NL, NO, RO, SD, SE, SU
        RW: AT, BE, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL,
            SE, SN, TD, TG
                                          US 1986-925201
                                                           19861031 <--
    US 5352664
                     Α
                           19941004
                                          AU 1987-82399
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                           19880525
    AU 8782399
                      A1
                                          EP 1987-907652
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    EP 328552
                      A1
    EP 328552
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                           19940518
    EP 328552
                     B2
                           19970502
        R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE
    JP 02501028 T2 19900412
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    AT 105842
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                                                           19871030 <--
                     E
                           19940615
PRAI US 1986-925201
                     Α
                           19861031 <--
    EP 1987-907652
                     Α
                           19871030 <--
                     Α
    WO 1987-US2882
                           19871030 <--
    Synthetic thrombin derivs. are described which bind to cell surface
    thrombin receptors and either stimulate or inhibit thrombin receptor
    occupancy signals. The stimulatory peptides stimulate DNA synthesis in
    cells treated with nonmitogenic concns. of \alpha-thrombin or phorbol
    myristate acetate. The peptides are used to promote cell growth and wound
```

healing or to inhibit scar formation, tissue adhesions, and tumor

metastasis and angiogenesis. Residues 508-530 of thrombin were identified as a site probably involved in receptor binding on the basis of x-ray

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crystallog. data and computer anal. of hydrophobicity and secondary structural features. A peptide corresponding to this region was synthesized by the solid-phase method and shown to competitively inhibit binding of 125I-labeled $\alpha\text{-thrombin}$ to thrombin receptors on cultured fibroblasts and to induce mitogenesis (thymidine-3H incorporation by cultured fibroblasts). This region also contained the serine proteinase-homologous domain. A subpeptide (residues 517-520) (fibronectin-homologous domain) also bound to the thrombin receptor, but did not induce mitogenesis and inhibited $\alpha\text{-thrombin-induced}$ mitogenesis by shifting the dose-response curve of the cells to $\alpha\text{-thrombin}$.

IT 93674-98-7

RL: BIOL (Biological study)

(peptides containing, as thrombin receptor-binding domain)

IT 37259-58-8, Serine esterase

RL: BIOL (Biological study)

(thrombin peptide derivative homologous to, receptor binding and signal generation by, wound healing and scar formation and tumor inhibition in relation to)

IT 121341-81-9

RL: BIOL (Biological study)

(thrombin receptor binding and signal generation by, wound healing and scar formation and tumor inhibition in relation to)

- L41 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1985:3775 HCAPLUS
- DN 102:3775
- TI Variants of the cell recognition site of fibronectin that retain attachment-promoting activity
- AU Pierschbacher, Michael D.; Ruoslahti, Erkki
- CS Cancer Res. Cent., La Jolla Cancer Res. Found., La Jolla, CA, 92037, USA
- SO Proceedings of the National Academy of Sciences of the United States of America (1984), 81(19), 5985-8
 CODEN: PNASA6; ISSN: 0027-8424
- DT Journal
- LA English
- A tetrapeptide sequence, Arg-Gly-Asp-Ser, is the minimal structure recognized by cells in the large, adhesive glycoprotein fibronectin. structural requirements for this cell recognition site were defined in human fibronectin by testing several synthetic variants of the active tetrapeptide sequence. The conservative substitutions of lysine for arginine, alanine for glycine, or glutamic acid for aspartic acid each resulted in abrogation of the cell attachment-promoting activity characteristic of the natural sequence. However, in the position of the serine residue, some alterations were compatible with activity. Assay of peptides containing the structure Arg-Gly-Asp-X (where X = another amino acid residue) showed that an Arg-Gly-Asp-Val sequence predicted to be present in some, but not all, fibronectin mols. as a result of alternative RNA splicings could potentially create a 2nd cell attachment site in those fibronectin polypeptide chains carrying that sequence. Other proteins with potentially active Arg-Gly-Asp-X sequences include several proteins that are known to interact with the cell surface. Among these are various types of collagens, thrombin, and discoidin, a slime-mold protein that may be involved in cell aggregation. Apparently, the arginine, glycine, and aspartic acid residues are absolutely required for the cell recognition, and the surrounding amino acids may play a role in the expression of cell attachment activity in fibronectin and other proteins having this sequence. This recognition mechanism may be common to a number of biol. systems.
- IT 93674-98-7
 - RL: BIOL (Biological study)
 - (of fibronectin cell recognition site, of human)

=> fil reg FILE 'REGISTRY' ENTERED AT 12:14:13 ON 26 FEB 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 24 FEB 2004 HIGHEST RN 654050-72-3
DICTIONARY FILE UPDATES: 24 FEB 2004 HIGHEST RN 654050-72-3

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=> => d l1 sqide can

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN

RN 390773-29-2 REGISTRY

CN L-Valine, L-cysteinyl-L- α -glutamylglycyl-L- α -aspartyl-L-serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME) OTHER NAMES:

CN 1: PN: WO0205836 SEQID: 1 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 10

PATENT ANNOTATIONS (PNTE):

Sequence | Patent | Source | Reference | Reference | Reference | Source | W02002005836 | Claimed | SEQID 1

SEQ 1 CEGDSGGPFV

HITS AT: 1-10

MF C40 H58 N10 O16 S

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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REFERENCE 1: 136:145245

REFERENCE 2: 136:129084

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L2 ANSWER 1 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN

RN 184906-58-9 REGISTRY

CN Cyclo(L-alanyl-L-arginylglycyl-L- α -aspartyl) (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 4

NTE cyclic

SEQ 1 ARGD

===

HITS AT: 1, 2-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C15 H25 N7 O6

SR CA

Absolute stereochemistry.

L2 ANSWER 2 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN

RN 177485-29-9 REGISTRY

CN L-Alanine, N-[N-[N-[N5-[bis[[(phenylmethoxy)carbonyl]amino]methylene]-L-ornithyl]glycyl]-L-α-aspartyl]-, 4-(phenylmethyl) ester (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 4

NTE modified (modifications unspecified)

type		location	description
modification	Arg-1	-	<pre>(phenylmethoxy) carbonyl<2; Z> phenylmethyl<bzl></bzl></pre>
modification	Asp-3	-	

SEQ 1 RGDA

HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C38 H45 N7 O11

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry. Double bond geometry unknown.

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:34044

L2 ANSWER 3 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN

RN 177485-26-6 REGISTRY

CN L-Alaninamide, N5-[bis[[(phenylmethoxy)carbonyl]amino]methylene]-Lornithylglycyl-L-α-aspartyl-N-[0-(N-acetyl-α-neuraminosyl)-

 $(2\rightarrow3)$ -0- β -D-galactopyranosyl- $(1\rightarrow4)$ -0- $[6-\text{deoxy}-\alpha\text{-L}-$

galactopyranosyl-(1→3)]-2-(acetylamino)-2-deoxy-β-D-

glucopyranosyl]-, 3-(phenylmethyl) ester, intramol. 1''',4''-ester (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 4

NTE modified (modifications unspecified)

type		location	description
modification modification	Arg-1 Asp-3	<u>-</u> · · · ·	<pre>(phenylmethoxy)carbonyl<2; Z> phenylmethyl<bzl></bzl></pre>

SEQ 1 RGDA

HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C69 H94 N10 O31

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

Double bond geometry unknown.

PAGE 1-A

PAGE 1-B

PAGE 2-B

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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:34044

L2 ANSWER 4 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN RN 176244-98-7 REGISTRY CN L-Alaninamide, L-arginylglycyl-L- α -glutamyl-N-[O-(N-acetyl- α -

CN L-Alaninamide, L-arginylglycyl-L-α-glutamyl-N-[O-(N-acetyl-α-neuraminosyl)-(2→3)-O-β-D-galactopyranosyl-(1→4)-O-[6-deoxy-α-L-galactopyranosyl-(1→3)]-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 4

NTE modified (modifications unspecified)

SEQ 1 RGDA ====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C46 H78 N10 O28

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

PAGE 1-B

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:34044

REFERENCE 2: 124:343845

L2 ANSWER 5 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN

RN 169393-79-7 REGISTRY

CN L-Alaninamide, L-arginylglycyl-L- α -aspartyl-N-[O-(N-acetyl- α -neuraminosyl)-(2+3)-O- β -D-galactopyranosyl-(1+4)-O-[6-deoxy- α -L-galactopyranosyl-(1+3)]-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl]-, 3-(phenylmethyl) ester (9CI) (CA INDEX NAME) PROTEIN SEQUENCE; STEREOSEARCH

SQL 4

NTE modified (modifications unspecified)

type ----- location ----- description
modification Asp-3 - phenylmethyl<Bzl>

SEQ 1 RGDA

====

HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C53 H84 N10 O28

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 123:286699

ANSWER 6 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN L2

RN 169393-78-6 REGISTRY

CNL-Alaninamide, L-arginylglycyl-L- α -aspartyl-N-[O-(N-acetyl- α neuraminosyl) - $(2\rightarrow3)$ -O- β -D-galactopyranosyl - $(1\rightarrow4)$ -O-[6 $deoxy-\alpha-L-galactopyranosyl-(1\rightarrow3)]-2-(acetylamino)-2-deoxy$ β-D-glucopyranosyl]-, 3-(phenylmethyl) ester, intramol. 1''',4''-ester (9CI) (CA INDEX NAME)

PROTEIN SEQUENCE; STEREOSEARCH FS

SQL 4

NTE modified (modifications unspecified)

----- location ----type description ______ modification Asp-3 phenylmethyl<Bzl>

SEQ 1 RGDA

HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

C53 H82 N10 O27 ΜF

SR CA

LC STN Files: CA, CAPLUS

PAGE 1-B

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 123:286699

SR

LC

CA

STN Files: CA, CAPLUS

```
ANSWER 7 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
L2
     169393-77-5 REGISTRY
RN
     L-Alaninamide, N2-[(phenylmethoxy)carbonyl]-N5-
CN
     [[[(phenylmethoxy)carbonyl]amino][[(phenylmethoxy)carbonyl]imino]methyl]-L-
     ornithylglycyl-L-\alpha-aspartyl-N-[O-(N-acetyl-\alpha-neuraminosyl)-
     (2\rightarrow3) -O-6-O-(phenylmethyl)-\beta-D-galactopyranosyl-(1\rightarrow4)-O-
     [6-deoxy-2,3,4-tris-O-(phenylmethyl)-α-L-galactopyranosyl-
     (1\rightarrow3)]-2-(acetylamino)-2-deoxy-6-0-(phenylmethyl)-\beta-D-
     glucopyranosyl]-, 3-(phenylmethyl) ester, intramol. 1''',4''-ester (9CI)
     (CA INDEX NAME)
FS
     PROTEIN SEQUENCE
SQL 4
NTE modified (modifications unspecified)
 type ----- location ----- description
modification Arg-1 - (phenylmethoxy)carbonyl<3; Z> modification Asp-3 - phenylmethyl<Bzl>
         1 RGDA
SEQ
           ====
HITS AT:
           1-4
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     C112 H130 N10 O33
```

Ph-CH2-

PAGE 1-B

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 123:286699

```
L2 ANSWER 8 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN 169393-76-4 REGISTRY
CN L-Alanine, N-[N-[N-[N5-[bis[[(phenylmethoxy)carbonyl]amino]methylene]-N2-
[(phenylmethoxy)carbonyl]-L-ornithyl]glycyl]-L-α-aspartyl]-,
4-(phenylmethyl) ester (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 4
NTE modified (modifications unspecified)

------ location ------ description
```

modification Arg-1 - (phenylmethoxy)carbonyl<3; Z>

Asp-3

phenylmethyl<Bzl>

SEQ 1 RGDA

modification

HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C46 H51 N7 O13

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

Double bond geometry unknown.

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 123:286699

L2 ANSWER 9 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN

RN 154331-63-2 REGISTRY

CN L-Alanine, N-[N-(N-L-arginylglycyl)-L-α-aspartyl]-3-cyclohexyl-(9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 4

NTE modified (modifications unspecified)

type ----- location ----- description
modification Ala-4 - cyclohexyl<Chx>

SEQ 1 RGDA ====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C21 H37 N7 O7

SR CA

LC STN Files: CA, CAPLUS

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:24242

REFERENCE 2: 120:260551

L2 ANSWER 10 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN

RN 154331-49-4 REGISTRY

CN L-Alanine, N-[N-(N-L-arginylglycyl)-L- α -aspartyl]-3-(1-naphthalenyl)-

(9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 4

NTE modified (modifications unspecified)

type ----- location ----- description

type ----- location ----- description

modification Ala-4 - 1-naphthalenyl<1-Naph>

SEQ 1 RGDA ====

HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C25 H33 N7 O7

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1: 120:260551 REFERENCE

ANSWER 11 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN L2

126054-18-0 REGISTRY RN

L-Alaninamide, N2-acetyl-N5-[imino[[(4-methylphenyl)sulfonyl]amino]methyl]-CNL-ornithylglycyl-L- α -aspartyl-3-(2-naphthalenyl)-, phenylmethyl ester (9CI) (CA INDEX NAME)

PROTEIN SEQUENCE; STEREOSEARCH

FS

SQL 4

NTE modified

type		location	description
terminal mod. terminal mod. modification modification modification	Arg-1 Ala-4 Arg-1 Asp-3 Ala-4	- - - -	N-acetyl C-terminal amide (4-methylphenyl)sulfonyl <tos> phenylmethyl<bzl> 2-naphthalenyl<2-Naph></bzl></tos>

1 RGDA SEO

====

HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

C41 H48 N8 O9 S MF

SR CA

LCSTN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PAGE 1-B

- 1 REFERENCES IN FILE CA (1907 TO DATE)
- 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
- 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1: 112:158983 REFERENCE

L2 ANSWER 12 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN

RN 126053-52-9 REGISTRY

CN L-Alaninamide, N2-acetyl-L-arginylglycyl-L- α -aspartyl-3-(2-naphthalenyl)- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 4

NTE modified

type ----- location ----- description

terminal mod. Arg-1 - N-acetyl
terminal mod. Ala-4 - C-terminal amide
modification Ala-4 - 2-naphthalenyl<2-Naph>

SEQ 1 RGDA

====

HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C27 H36 N8 O7

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 115:183848

REFERENCE 2: 112:158983

L2 ANSWER 13 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN

RN 93674-98-7 REGISTRY

CN L-Alanine, L-arginylglycyl-L- α -aspartyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN L-Alanine, N-[N-(N-L-arginylglycyl)-L- α -aspartyl]-

OTHER NAMES:

CN 1: PN: US6630572 SEQID: 1 claimed sequence

CN 24: PN: US6376248 SEQID: 23 unclaimed sequence

CN 2: PN: WO0205836 SEQID: 2 claimed protein

CN 43: PN: US6051429 SEQID: 23 unclaimed sequence

FS PROTEIN SEQUENCE; STEREOSEARCH

SOL 4

PATENT ANNOTATIONS (PNTE):

SEQ

1 RGDA

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HITS AT:

1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C15 H27 N7 O7

LC STN Files:

CA, CAPLUS, MEDLINE, TOXCENTER, USPATFULL

Absolute stereochemistry.

$$HO_2C$$
 S
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 NH
 NH_2
 HO_2C
 S
 N
 H
 O
 NH_2

11 REFERENCES IN FILE CA (1907 TO DATE)

11 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:286388

REFERENCE 2: 139:128022

REFERENCE 3: 136:336176

REFERENCE 4: 136:145245

REFERENCE 5: 136:129084

REFERENCE 6: 136:96054

REFERENCE 7: 132:289590

REFERENCE 8: 123:237743

REFERENCE 9: 113:3752

REFERENCE 10: 111:33675

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ANSWER 1 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN L3 566137-84-6 REGISTRY RN $L-Valinamide, \ N-acetyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-\alpha-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-bysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-bysyl-L-prolyl-L-alanylglycyl-L-tyrosyl-L-bysyl$ $aspartyl-L-\alpha-glutamylglycyl-L-lysyl-L-arginylglycyl-L-\alpha$ $aspartyl-L-alanyl-L-cysteinyl-L-\alpha-glutamylglycyl-L-\alpha-aspartyl-$ L-serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME) OTHER NAMES: 3: PN: W003061690 PAGE: 36 claimed protein CN PROTEIN SEQUENCE; STEREOSEARCH FS SQL 23 NTE modified description ----- location ----terminal mod. Ala-1 terminal mod. Val-23 N-acetyl C-terminal amide PATENT ANNOTATIONS (PNTE): Sequence | Patent Source Reference

Not Given W02003061690 claimed PAGE

36

1 AGYKPDEGKR GDACEGDSGG PFV SEO

HITS AT: 1-23

RELATED SEQUENCES AVAILABLE WITH SEQLINK

C99 H149 N29 O36 S MF

SR

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 1-C

$$(CH_2)_3$$

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PAGE 1-D

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
           2 REFERENCES IN FILE CA (1907 TO DATE)
           2 REFERENCES IN FILE CAPLUS (1907 TO DATE)
       1: 139:128057
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REFERENCE 2: 139:128022
   ANSWER 2 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN
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   566137-83-5 REGISTRY
RN
   CN
   aspartyl-L-\alpha-glutamylglycyl-L-lysyl-L-arginylglycyl-L-\alpha-
   aspartyl-L-alanyl-L-cysteinyl-L-\alpha-glutamylglycyl-L-\alpha-aspartyl-
   L-serylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2: PN: WO03061690 PAGE: 36 claimed protein
  PROTEIN SEQUENCE; STEREOSEARCH
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SQL 23
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type ----- location ----- description
_____
terminal mod. Ala-1 -
                              N-acetyl
______
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source | Reference
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Not Given W02003061690
       claimed PAGE
      136
SEO
      1 AGYKPDEGKR GDACEGDSGG PFV
        HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
  C99 H148 N28 O37 S
MF
   STN Files: CA, CAPLUS
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LC

PAGE 1-B

PAGE 1-C

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PAGE 1-D

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:128057

REFERENCE 2: 139:128022

L3 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN

RN 497221-38-2 REGISTRY

CN L-Valinamide, L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L- α -aspartyl-L- α -glutamylglycyl-L-lysyl-L-arginylglycyl-L- α -aspartyl-L-

alanyl-L-cysteinyl-L- α -glutamylglycyl-L- α -aspartyl-L-

serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1: PN: WO03061690 PAGE: 36 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 23

NTE modified

type ----- location ----- description
terminal mod. Val-23 - C-terminal amide

PATENT ANNOTATIONS (PNTE):

SEQ 1 AGYKPDEGKR GDACEGDSGG PFV

HITS AT: 1-23

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C97 H147 N29 O35 S

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

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PAGE 1-B

PAGE 1-C

PAGE 1-D

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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4 REFERENCES IN FILE CA (1907 TO DATE)
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4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322
REFERENCE 2: 139:128057

REFERENCE 3: 139:128022

REFERENCE 4: 138:180761

L3 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN

RN 121341-81-9 REGISTRY

CN L-Valine, L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L- α -aspartyl-L- α -glutamylglycyl-L-lysyl-L-arginylglycyl-L- α -aspartyl-L-alanyl-L-cysteinyl-L- α -glutamylglycyl-L- α -aspartyl-L-

serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 3: PN: WO0205836 SEQID: 3 claimed protein CN 8: PN: US6184342 SEQID: 8 claimed sequence CN 8: PN: US6602978 SEQID: 8 unclaimed sequence

CN Chrysalin CN TP 508

CN TRAP 508

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 23

PATENT ANNOTATIONS (PNTE):

Sequence | Patent | Source | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | R

SEQID 3

SEO

1 AGYKPDEGKR GDACEGDSGG PFV

HITS AT:

1-23

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C97 H146 N28 O36 S

SR CA

LC STN Files: BIOBUSINESS, BIOSIS, CA, CAPLUS, IMSDRUGNEWS, IMSPATENTS,

IMSRESEARCH, PROMT, TOXCENTER, USPATFULL

Absolute stereochemistry.

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21 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

21 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

REFERENCE 2: 139:191912

REFERENCE 3: 139:148476

REFERENCE 4: 139:138483

REFERENCE 5: 139:128057

REFERENCE 6: 139:128022

REFERENCE 7: 139:12258

REFERENCE 8: 137:362953

REFERENCE 9: 136:129084

REFERENCE 10: 136:96054

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L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN

RN 390773-29-2 REGISTRY

CN L-Valine, L-cysteinyl-L-lpha-glutamylglycyl-L-lpha-aspartyl-L-

serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1: PN: WO0205836 SEQID: 1 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 10

PATENT ANNOTATIONS (PNTE):

SEQ 1 CEGDSGGPFV

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HITS AT: 1-10

MF C40 H58 N10 O16 S

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:145245

REFERENCE 2: 136:129084

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L5 ANSWER 1 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 642984-41-6 REGISTRY

CN L-Valine, L-arginylglycyl-L-α-aspartyl-L-alanyl-L-cysteinyl-L-glutaminylglycyl-L-α-aspartyl-L-serylglycylglycyl-L-prolyl-L-valyl-(9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 14

SEQ 1 RGDACQGDSG GPVV

HITS AT: 1-14

MF C51 H84 N18 O21 S

SR CA

LC STN Files: CA, CAPLUS

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PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 2 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 642984-39-2 REGISTRY

CN L-Valine, L-arginylglycyl-L-α-aspartyl-L-alanyl-L-cysteinyl-L-glutaminylglycyl-L-α-aspartyl-L-serylglycylglycyl-L-prolyl-L-histidyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 14

SEQ 1 RGDACQGDSG GPHV

HITS AT: 1-14

MF C52 H82 N20 O21 S

SR CA

LC STN Files: CA, CAPLUS

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PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 3 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 642984-37-0 REGISTRY

CN L-Valine, L-arginylglycyl-L-α-aspartyl-L-alanyl-L-cysteinyl-L-glutaminylglycyl-L-α-aspartyl-L-serylglycylglycyl-L-prolyl-L-leucyl-(9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 14

SEQ 1 RGDACQGDSG GPLV

HITS AT: 1-14

MF C52 H86 N18 O21 S

SR CA

LC STN Files: CA, CAPLUS

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PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 4 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 642984-35-8 REGISTRY

CN L-Valine, L-arginylglycyl-L-α-aspartyl-L-alanyl-L-cysteinyl-Lglutaminylglycyl-L-α-aspartyl-L-serylglycylglycyl-L-prolyl-Lmethionyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 14

SEQ 1 RGDACQGDSG GPMV

HITS AT: 1-14

MF C51 H84 N18 O21 S2

SR CA

LC STN Files: CA, CAPLUS

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PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 5 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 642984-33-6 REGISTRY

CN L-Valine, L-arginylglycyl-L-α-aspartyl-L-alanyl-L-cysteinyl-Lglutaminylglycyl-L-α-aspartyl-L-serylglycylglycyl-L-prolyl-Lphenylalanyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 14

SEQ 1 RGDACQGDSG GPFV

HITS AT: 1-14

MF C55 H84 N18 O21 S

SR CA

LC STN Files: CA, CAPLUS

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 6 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 642984-31-4 REGISTRY

CN L-Valine, L-arginylglycyl-L- α -aspartyl-L-alanyl-L-cysteinyl-L- α -glutamylglycyl-L- α -aspartyl-L-serylglycylglycyl-L-prolyl-L-valyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 14

SEQ 1 RGDACEGDSG GPVV

HITS AT: 1-14

MF C51 H83 N17 O22 S

SR CA

LC STN Files: CA, CAPLUS

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 7 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 642984-29-0 REGISTRY

CN L-Valine, L-arginylglycyl-L- α -aspartyl-L-alanyl-L-cysteinyl-L- α -glutamylglycyl-L- α -aspartyl-L-serylglycylglycyl-L-prolyl-L-histidyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 14

SEQ 1 RGDACEGDSG GPHV

HITS AT: 1-14

MF C52 H81 N19 O22 S

SR CA

LC STN Files: CA, CAPLUS

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 8 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 642984-27-8 REGISTRY

CN L-Valine, L-arginylglycyl-L- α -aspartyl-L-alanyl-L-cysteinyl-L- α -glutamylglycyl-L- α -aspartyl-L-serylglycylglycyl-L-prolyl-L-leucyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 14

SEQ 1 RGDACEGDSG GPLV

HITS AT: 1-14

MF C52 H85 N17 O22 S

SR CA

LC STN Files: CA, CAPLUS

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PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 9 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 642984-25-6 REGISTRY

CN L-Valine, L-arginylglycyl-L- α -aspartyl-L-alanyl-L-cysteinyl-L- α -glutamylglycyl-L- α -aspartyl-L-serylglycylglycyl-L-prolyl-L-methionyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 14

SEQ 1 RGDACEGDSG GPMV

HITS AT: 1-14

MF C51 H83 N17 O22 S2

SR CA

LC STN Files: CA, CAPLUS

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PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 10 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 146367-84-2 REGISTRY

CN L-Valine, L-arginylglycyl-L- α -aspartyl-L-alanyl-L-cysteinyl-L- α -glutamylglycyl-L- α -aspartyl-L-serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 7: PN: US6630572 SEQID: 7 claimed sequence

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 14

PATENT ANNOTATIONS (PNTE):

SEQ 1 RGDACEGDSG GPFV

HITS AT: 1-14

MF C55 H83 N17 O22 S

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

REFERENCE 2: 139:286388

REFERENCE 3: 126:135681

REFERENCE 4: 118:116686

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L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN

RN 9002-04-4 REGISTRY

CN Thrombin (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

```
Blood-coagulation factor II, activated
CN
     Blood-coagulation factor IIa
CN
CN
     E.C. 3.4.21.5
CN
     E.C. 3.4.4.13
CN
     Factor IIa
     Thrombase
CN
     Thrombin JMI
CN
     Thrombin-C
CN
CN
     Thrombinar
     Thrombofort
CN
     Thrombostat
CN
CN
     Topical
CN
     Tropostasin
DR
     8050-02-0, 8059-56-1, 9014-41-9, 105881-84-3, 53028-63-0
MF
     Unspecified
CI
     COM, MAN
LC STN Files:
                  ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,
       CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST,
       CIN, CSCHEM, DDFU, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA,
       MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS*,
       TOXCENTER, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
                      EINECS**, TSCA**
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
           16622 REFERENCES IN FILE CA (1907 TO DATE)
             854 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
           16655 REFERENCES IN FILE CAPLUS (1907 TO DATE)
REFERENCE
           1: 140:133919
REFERENCE
            2:
               140:127190
REFERENCE
            3:
               140:126418
REFERENCE
            4:
               140:125871
REFERENCE
            5:
                140:125737
               140:125736
REFERENCE
            6:
REFERENCE
            7:
                140:124532
REFERENCE
            8:
                140:122500
REFERENCE
                140:122487
            9:
REFERENCE 10: 140:122444
=> d ide can 17
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
L7
     37259-58-8 REGISTRY
RN
     Proteinase, serine (9CI) (CA INDEX NAME)
CN
OTHER NAMES:
CN
     Alcalase 3.0T
CN
     Bacillus alk. serine proteinase
CN
     Bactosol SI
CN
     Caldolase
CN
     Cerastobin
```

CN

Gene easter serine protease

```
CN
     Herpes simplex virus type 1 proteinase
CN
     Pfu Protease S
CN
     Proteinase R
CN
     Proteinase T
CN
     Proteins, gene easter
CN
     Proteins, gene snake
CN
     Prozyme 6
CN
     Serine endopeptidase
CN
     Serine esterase
     Serine peptidase
CN
     Serine protease
CN
CN
     Serine proteinase
     serine proteinase
CN
CN
     Serine-type protease
CN
     Seryl protease
CN
     Tryase
     139074-63-8, 116036-72-7
DR
MF
     Unspecified
CI
     MAN
LC
                 ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,
     STN Files:
       CA, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CIN, EMBASE, IFICDB,
       IFIPAT, IFIUDB, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:
                      EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory information)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
            6261 REFERENCES IN FILE CA (1907 TO DATE)
              93 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            6282 REFERENCES IN FILE CAPLUS (1907 TO DATE)
REFERENCE
               140:133790
            1:
REFERENCE
                140:133787
            2:
REFERENCE
            3:
                140:126910
REFERENCE
                140:126272
REFERENCE
            5:
                140:125265
REFERENCE
            6:
                140:124306
REFERENCE
            7:
                140:123660
REFERENCE
            8:
                140:122834
REFERENCE
                140:110192
            9:
REFERENCE
                140:110075
           10:
=> d 138 ide can tot
    ANSWER 1 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN
L38
RN
     34346-01-5 REGISTRY
     Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI)
CN
                                                                          (CA
     INDEX NAME)
OTHER CA INDEX NAMES:
    Acetic acid, hydroxy-, polymer with 2-hydroxypropanoic acid (9CI)
CN
OTHER NAMES:
     (±)-2-Hydroxypropanoic acid-hydroxyacetic acid copolymer
CN
```

CN

Alzamer Depot

```
DL-Lactic acid-glycolic acid copolymer
CN
     dl-Lactic acid-glycolic acid copolymer
CN
     dl-Lactic acid-glycolic acid polymer
CN
CN
     GC-Membrane
CN
     Glycolic acid-DL-lactic acid copolymer
     Glycolic acid-lactic acid copolymer
CN
     Glycolic acid-lactic acid polymer
CN
     Hydroxyacetic acid-(\pm)-2-hydroxypropanoic acid copolymer
CN
     Hydroxyacetic acid-2-hydroxypropionic acid copolymer
CN
CN
     Hydroxyacetic acid-lactic acid copolymer
     Lactic acid-glycolic acid copolymer
CN
     Lactic acid-glycolic acid polymer
CN
     PLGA 5010
CN
CN
     PLGA 5020
CN
     Poly(DL-lactic acid-glycolic acid)
CN
     Poly(glycolic acid-co-DL-lactic acid)
CN
     Poly(glycolic acid-lactic acid)
CN
     Poly(lactic acid-glycolic acid)
CN
     Resolut
CN
     Resolut LT
     Resolut ST
CN
     Resomer RG 502
CN
     Resomer RG 502H
CN
     Resomer RG 504H
CN
CN
     Resomer RG 858
CN
     RG 502H
     59199-59-6, 66327-52-4, 153439-97-5, 265647-91-4
DR
MF
     (C3 H6 O3 . C2 H4 O3)x
CI
     PMS, COM
PCT
     Polyester, Polyester formed
     STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT,
       CAPLUS, CEN, CHEMCATS, CIN, CSCHEM, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA,
       MEDLINE, TOXCENTER, USPATZ, USPATFULL
     CM
          1
     CRN
         79-14-1
     CMF
          C2 H4 O3
   0
HO-C-CH2-OH
     CM
          2
     CRN 50-21-5
     CMF
          C3 H6 O3
   OH
Me-CH-CO2H
            1677 REFERENCES IN FILE CA (1907 TO DATE)
              35 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
```

1686 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1: 140:133773

REFERENCE

```
REFERENCE
           2: 140:133736
REFERENCE
           3: 140:133733
REFERENCE
           4: 140:133726
REFERENCE
           5: 140:133626
REFERENCE
           6: 140:133573
REFERENCE
           7: 140:117488
REFERENCE
           8: 140:117419
REFERENCE
          9: 140:117354
REFERENCE 10: 140:117349
L38 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN
    26124-68-5 REGISTRY
    Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
    Glycolic acid, polyesters (8CI)
OTHER NAMES:
CN
    Dexon
CN
    Dexon (polyester)
CN
     Glycolic acid homopolymer
     Glycolic acid polymer
CN
    Hydroxyacetic acid homopolymer
CN
CN
    Hydroxyacetic acid polymer
     Poly(glycolic acid)
CN
     Poly(L-glycolic acid)
CN
     (C2 H4 O3)x
MF
     PMS, COM
CI
PCT Polyester, Polyester formed
     STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
LC
       CAPLUS, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DIOGENES, EMBASE,
       IFICDB, IFIPAT, IFIUDB, NIOSHTIC, PIRA, PROMT, TOXCENTER, TULSA, USPAT2,
       USPATFULL
    Other Sources:
                     NDSL**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
**RELATED POLYMERS AVAILABLE WITH POLYLINK**
     CM
          1
     CRN 79-14-1
     CMF C2 H4 O3
   O
HO-C-CH2-OH
            1459 REFERENCES IN FILE CA (1907 TO DATE)
              52 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
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1467 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:133898
REFERENCE 2: 140:133892

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REFERENCE
            3:
               140:133849
REFERENCE
            4:
                140:133845
REFERENCE
            5:
               140:133773
REFERENCE
            6:
               140:133676
            7:
               140:117488
REFERENCE
               140:117419
REFERENCE
            8:
REFERENCE
           9:
               140:99693
REFERENCE 10: 140:99678
L38 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN
    26100-51-6 REGISTRY
RN
    Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)
CN
OTHER CA INDEX NAMES:
    Lactic acid, polymers (8CI)
CN
OTHER NAMES:
     (±)-2-Hydroxypropanoic acid homopolymer
CN
     (±)-Lactic acid homopolymer
CN
     (±)-Poly(lactic acid)
CN
    DL-Lactic acid homopolymer
CN
    DL-Lactic acid polymer
CN
    DL-Polylactic acid
CN
    Lactic acid homopolymer
CN
CN
    Lactic acid polymer
    Lactic acid, polyesters
CN
CN
    Poly(dl-lactate)
CN
    Poly(dl-lactic acid)
    Poly(DL-lactic acid)
CN
    Poly(lactic acid)
CN
DR
    31587-11-8
     (C3 H6 O3)x
MF
     PMS, COM
CI
    Polyester, Polyester formed
PCT
LC
                 ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
       CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, DDFU,
       DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, PIRA,
       PROMT, TOXCENTER, TULSA, USPAT2, USPATFULL, VETU
     Other Sources:
                      NDSL**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
**RELATED POLYMERS AVAILABLE WITH POLYLINK**
     CM
          1
     CRN 50-21-5
     CMF C3 H6 O3
   OH
Me^-CH^-CO_2H
            3938 REFERENCES IN FILE CA (1907 TO DATE)
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139 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

3969 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE	1:	140:133898
REFERENCE	2:	140:133892
REFERENCE	3:	140:133849
REFERENCE	4:	140:133845
REFERENCE	5:	140:133773
REFERENCE	6:	140:133731
REFERENCE	7:	140:133665
REFERENCE	8:	140:133528
REFERENCE	9:	140:129753
REFERENCE	10:	140:129428

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